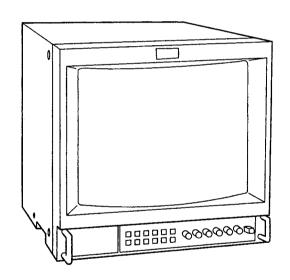
### **SERVICE MANUAL**

1.000	
MODEL DEST. CHASSIS NO. MODEL	DEST. CHASSIS NO.
PVM-14M2U US Canadian SCC-G61J-A PVM-14M4E PVM-14M4U US Canadian SCC-G61G-A PVM-14M2A	
PVM-14M2E AEP SCC-G62HA PVM-14M4A	Australian SCC-N17B-A





**Trinitron**PVM-14M2U/14M2E

TRINITRON® COLOR VIDEO MONITOR

SONY.

### **SPECIFICATIONS**

Video signal

For PVM-14M4U/14M4E/20M4U/20M4E:

Color system

NTSC, PAL, SECAM, NTSC4.43

Resolution

800 TV lines Aperture correction 0 dB to +6 dB

Frequency response

LINE

10 MHz ± 3 dB (Y signal)

**RGB** 

 $10 \text{ MHz} \pm 3 \text{ dB}$ 

Synchronization

AFC time constant 1.0 msec.

Color system

For PVM-14M2U/14M2E/20M2U/20M2E: NTSC, PAL, SECAM, NTSC4.43

Resolution Aperture correction 0 dB to +6 dB

600 TV lines

Frequency response

LINE

 $10 \text{ MHz} \pm 3 \text{ dB} (Y \text{ signal})$ 

**RGB** 

 $10 \text{ MHz} \pm 3 \text{ dB}$ 

**Synchronization** 

AFC time constant 1.0 msec.

### Picture performance

For PVM-14M4U/14M4E/14M2U/14M2E:

Normal scan

7 % over scan of CRT effective screen

area

Under scan

5 % underscan of CRT effective screen

area

H. linearity

Less than 4.0 % (typical)

V. linearity

Less than 4.0 % (typical)

Convergence

Central area:

0.4 mm (typical)

Peripheral area: 0.5 mm (typical)

Raster size stability H: 1.0%, V: 1.5%

High voltage regulation

3.5 %

Color temperature

D65/D93, selectable

USER (3,200K-10,000K, factory

setting is D65)

For PVM-20M4U/20M4E:

Normal scan

7 % over scan of CRT effective screen

area

Under scan

5 % underscan of CRT effective screen

H. linearity

Less than 5.0 % (typical)

V. linearity

Less than 5.0 % (typical)

Convergence

Central area:

0.5 mm (typical)

Peripheral area: 0.7 mm (typical)

Raster size stability H: 1.0%, V: 1.5%

High voltage regulation

4.0 %

Color temperature

D65/D93, selectable

USER (3,200K-10,000K, factory

setting is D65)

For PVM-20M2U/20M2E

Normal scan

7 % over scan of CRT effective screen

area

Under scan

5 % underscan of CRT effective screen

H. linearity

Less than 5.0 % (typical)

V. linearity

Less than 5.0 % (typical)

Convergence

Central area:

0.6 mm (typical)

Peripheral area: 1.0 mm (typical)

Raster size stability H: 1.0%, V: 1.5%

High voltage regulation

4.0%

Color temperature

D65/D93, selectable

USER (3,200K-10,000K, factory

setting is D65)

### Inputs

For PVM-14M4U/14M4E/20M4U/20M4E:

LINE A/B

VIDEO IN BNC connector (×2), 1Vp-p ±6 dB,

sync negative

Automatic 75 ohms termination

Phono jack (×2), -5 dBu<sup>a)</sup>, more than **AUDIO IN** 

47 kilo-ohms

LINE C

Y/C IN 4-pin mini-DIN (×1)

See the pin assignment on page 19.

Phono jack ( $\times 1$ ),  $-5 \, dBu^a$ ), more than **AUDIO IN** 

47 kilo-ohms

RGB/COMPONENT

R/R-Y,G/Y,B/B-Y IN: BNC connector (×3)

R, G, B channels: 0.7 Vp-p, ±6 dB

Sync on green: 0.3 Vp-p, negative

R-Y, B-Y channels: 0.7 Vp-p, ±6 dB

Y channel: 0.7 Vp-p, ±6 dB

(Standard color bar signal of 75%

chrominance)

Automatic 75 ohms termination

**AUDIO IN** Phono jack ( $\times 1$ ), -5 dBu<sup>a)</sup>, more than

47 kilo-ohms

BNC connector (×1) **EXT SYNC IN** 

4 Vp-p, ±6 dB, sync negative 20-pin connector (×1)

See the pin assignment on page 19.

a) 0 dBu = 0.775 Vr.m.s.

REMOTE

For PVM-14M2U/14M2E/20M2U/20M2E: General LINE A/B For PVM-14M4U: VIDEO IN BNC connector (x2), 1 Vp-p **CRT** SMPTE-C phosphor ± 6dB, sync negative Power consumption 90 Wh (with SDI: 99 Wh) Automatic 75 ohms termination Power requirements 120 V AC, 50/60Hz Phono jack ( $\times$ 2), -5 dBu<sup>a</sup>), more than **AUDIO IN** Operating temperature 47 kilo-ohms 0 to  $+35^{\circ}$ C (32 to  $95^{\circ}$ F) LINE C Storage temperature -10 to +40°C (14 to 104°F) Y/C IN 4-pin mini-DIN (×1) Operating humidity 35 to 85% (no condensation) See the pin assignment on page 19. Storage humidity 0 to 90% Phono jack ( $\times 1$ ),  $-5 \text{ dBu}^{a}$ , more than AUDIO IN Dimensions (w/h/d) Approx.  $346 \times 340 \times 431$  mm 47 kilo-ohms  $(13\frac{5}{8} \times 13\frac{1}{2} \times 17 \text{ inches})$ RGB/COMPONENT not incl. projecting parts and controls R/R-Y,G/Y,B/B-Y IN: BNC connector (×3) Approx. 16.7kg (36 lb 13 oz) Mass R, G, B channels:  $0.7 \text{ Vp-p} \pm 6 \text{dB}$ Accessory supplied AC power cord (1) Sync on green: 0.3 Vp-p negative AC plug holder (1) R-Y, B-Y channel: 0.7 Vp-p ± 6dB Tally label (1) Y channel: 0.7 Vp-p ± 6dB Cable with a 20-pin connector (1) (Standard color bar signal of 75% chrominance) For PVM-14M4E: Automatic 75 ohms termination **CRT** EBU phosphor **AUDIO IN** Phono jack ( $\times 1$ ),  $-5 \text{ dBu}^{a}$ , more than Power consumption 90 Wh (with SDI: 99 Wh) 47 kilo-ohms Power requirements 100 to 240 V AC, 50/60Hz **EXT SYNC IN** BNC connector (×1) Operating temperature 4 Vp-p, ±6 dB, sync negative 0 to  $+35^{\circ}$ C (32 to  $95^{\circ}$ F) REMOTE 20-pin connector (×1) Storage temperature -10 to +40°C (14 to 104°F) See the pin assignment on page 19. Operating humidity 35 to 85% (no condensation) Storage humidity 0 to 90% a) 0 dBu = 0.775 Vr.m.s.Dimensions (w/h/d) Approx.  $346 \times 340 \times 431$  mm  $(13\frac{5}{8} \times 13\frac{1}{2} \times 17 \text{ inches})$ not incl. projecting parts and controls Mass Approx. 16.7kg (36 lb 13 oz) Outputs (common to all models) Accessory supplied AC power cord (1) LINE A/B AC plug holder (1) **VIDEO OUT** BNC connector (×2) loop-through, Tally label (1) Automatic 75 ohms termination Cable with a 20-pin connector (1) **AUDIO OUT** Phono jack (×2) loop-through For PVM-14M2U: LINE C Y/C OUT 4-pin mini-DIN (×1) loop-through, CRT P-22 phosphor Automatic 75 ohms termination Power consumption 90 Wh (with SDI: 99 Wh) Power requirements 120 V AC, 50/60Hz **AUDIO OUT** Phono iack (×1) loop-through Operating temperature **RGB/COMPONENT** R/R-Y,G/Y,B/B-Y OUT: BNC connector (×3) 0 to +35°C (32 to 95°F) loop-through Storage temperature  $-10 \text{ to } +40^{\circ}\text{C} (14 \text{ to} 104^{\circ}\text{F})$ Operating humidity 35 to 85% (no condensation) Automatic 75 ohms termination **AUDIO OUT** Phono jack (×1) loop-through Storage humidity 0 to 90% **EXT SYNC OUT** BNC connector  $(\times 1)$ Dimensions (w/h/d) Approx.  $346 \times 340 \times 431$  mm Automatic 75 ohms termination  $(13\frac{5}{8} \times 13\frac{1}{2} \times 17 \text{ inches})$ Output level: 0.8 W Speaker output not incl. projecting parts and controls

Mass

Approx. 16.7kg (36 lb 13 oz)

Cable with a 20-pin connector (1)

AC plug holder (1) Tally label (1)

Accessory supplied AC power cord (1)

For PVM-14M2E:

CRT P-22 phosphor

Power consumption 90 Wh (with SDI: 99 Wh) Power requirements 100 to 240 V AC, 50/60Hz

Operating temperature

 $0 \text{ to } +35^{\circ}\text{C} (32 \text{ to } 95^{\circ}\text{F})$ 

Storage temperature -10 to +40°C (14 to 104°F) Operating humidity 35 to 85% (no condensation)

Storage humidity 0 to 90%

Dimensions (w/h/d) Approx.  $346 \times 340 \times 431$  mm

 $(13^{5}/8 \times 13^{1}/2 \times 17 \text{ inches})$ 

not incl. projecting parts and controls

Mass A

Approx. 16.7kg (36 lb 13 oz)

Accessory supplied AC power cord (1)

AC plug holder (1) Tally label (1)

Cable with a 20-pin connector (1)

For PVM-20M4U:

CRT SMPTE-C phosphor

Power consumption 125 Wh (with SDI: 135 Wh)

Power requirements 120 V AC, 50/60Hz

Operating temperature

 $0 \text{ to } +35^{\circ}\text{C} (32 \text{ to } 95^{\circ}\text{F})$ 

Storage temperature -10 to +40°C (14 to 104°F) Operating humidity 35 to 85% (no condensation)

Storage humidity 0 to 90%

Dimensions (w/h/d) Approx.  $450 \times 458 \times 503$  mm

 $(17^{3}/4 \times 18^{1}/8 \times 19^{7}/8 \text{ inches})$ 

not incl. projecting parts and controls

Mass Approx. 30.0 kg (66 lb 2 oz)

Accessory supplied AC power cord (1)

AC plug holder (1) Tally label (1)

Cable with a 20-pin connector (1)

For PVM-20M4E:

CRT EBU phosphor

Power consumption 130 Wh (with SDI: 140 Wh) Power requirements 100 to 240 V AC, 50/60Hz

Operating temperature

0 to  $+35^{\circ}$ C (32 to  $95^{\circ}$ F)

Storage temperature -10 to +40°C (14 to 104°F) Operating humidity 35 to 85% (no condensation)

Storage humidity 0 to 90%

Dimensions (w/h/d) Approx.  $450 \times 458 \times 503$  mm

 $(17^{3/4} \times 18^{1/8} \times 19^{7/8})$  inches

not incl. projecting parts and controls

Mass Approx. 30.0 kg (66 lb 2 oz)

Accessory supplied AC power cord (1)

AC plug holder (1) Tally label (1)

Cable with a 20-pin connector (1)

For PVM-20M2U:

CRT P-22 phosphor

Power consumption 115 Wh (with SDI: 125 Wh)

Power requirements 120 V AC, 50/60Hz

Operating temperature

0 to +35°C (32 to 95°F)

Storage temperature -10 to +40°C (14 to 104°F) Operating humidity 35 to 85% (no condensation)

Storage humidity 0 to 90%

Dimensions (w/h/d) Approx.  $450 \times 458 \times 503$  mm

 $(17^{3}/4 \times 18^{1}/8 \times 19^{7}/8 \text{ inches})$ 

not incl. projecting parts and controls

Mass Approx. 30.0 kg (66 lb 2 oz)

Accessory supplied AC power cord (1)

AC plug holder (1) Tally label (1)

Cable with a 20-pin connector (1)

For PVM-20M2E:

CRT P-22 phosphor

Power consumption 120 Wh (with SDI: 130 Wh) Power requirements 100 to 240 V AC, 50/60Hz

Operating temperature

 $0 \text{ to } +35^{\circ}\text{C} (32 \text{ to } 95^{\circ}\text{F})$ 

Storage temperature -10 to +40°C (14 to 104°F) Operating humidity 35 to 85% (no condensation)

Storage humidity 0 to 90%

Dimensions (w/h/d) Approx.  $450 \times 458 \times 503$  mm

 $(17^{3}/4 \times 18^{1}/8 \times 19^{7}/8 \text{ inches})$ 

not incl. projecting parts and controls

Mass Approx. 30.0 kg (66 lb 2 oz)

Accessory supplied AC power cord (1)

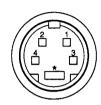
AC plug holder (1) Tally label (1)

Cable with a 20-pin connector (1)

Design and specifications are subject to change without notice.

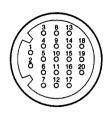
### Pin assignment

Y/C IN connector (4-pin mini-DIN)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA subcarrier-input	300m Vp-p, burst Delay time between Y and C: within 0 ± 100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

### REMOTE connector (20-pin)



Pin No.	Signal	Wire color
1	Blue only	Brown
2	H/V DELAY	Red
3	MAIN/SUB*	Orange
4	EXT SYNC	Yellow
5	DEGAUSS	Green
6	R ch ON/OFF*	Blue
7	TALLY	Purple
8	LINE B	Grey
9	GND	White
10	GND	Black
11	GND	Pink
12	GND	Light Blue
13	LINE A	Spiral Orange
14	LINE/RGB	Spiral Yellow
15	GND	Spiral Green
16	L ch ON/OFF*	Spiral Blue
17	REMOTE	Spiral Purple
18	LINE C	Spiral Grey
19	UNDER SCAN	Spiral Pink
20	16:9	Spiral Light Blue

(\* For digital audio control)

How to connect a remote control unit Connect No.17 pin to one of the GND pins (No.9 – 12, and 15), then connect pins for the functions you want to use to other GND pins (No.9 – 12, and 15).

How to light the tally lamp Connect No.7 pin to one of the GND pins (No.9 - 12, and 15).

### **SAFETY CHECK-OUT**

### (US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

- Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
- Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
- Check the line cords for cracks and abrasion.
   Recommend the replacement of any such line cord to the customer.
- Check the B+ and HV to see if they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
- Check the metal trim, metallized knobs, screws, and all other exposed metal parts for AC leakage.
   Check leakage as described below.

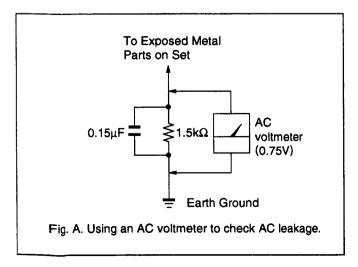
### **LEAKAGE TEST**

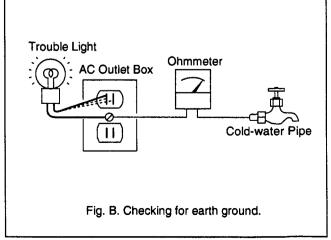
The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufactures' instructions to use these instruments.
- A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)





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### (CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

### **WARNING!!**

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK A ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

### (ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

### ATTENTION!!

AFIN D'EVITER TOUT RESQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

### ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE A SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

### **SECTION 1** GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the

Operating Instruction Manual remain as in the manual.

### Features

### Picture

Horizontal resolution is more than 800 TV lines at the HR (High Resolution) Trinitron " picture tube HR Trinitron tube provides a high resolution picture. for PVM-14M4U/14M4E/20M4U/20M4E center of the picture.

Horizontal resolution is more than 600 TV lines at the Trinitron tube provides a high resolution picture. for PVM-14M2U/14M2E/20M2U/20M2E Trinitron<sup>1)</sup> picture tube center of the picture.

When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.

Automatic termination The built-in beam current feedback circuit assures Beam current feedback circuit stable white balance.

The monitor can display NTSC, PAL, SECAM and NTSC4.32) signals. The appropriate color system is

selected automatically.

Four color system available

display is obtained with all three cathodes driven with

In the blue only mode, an apparent monochrome

Blue only mode

a blue signal. This facilitates color saturation and phase adjustments and observation of VCR noise.

when no cable is connected to the loop-through output The input connector is terminated at 75 ohms inside connector. When a cable is connected to an output connector, the 75-ohm termination is automatically (connector with released.

Functions

### Underscan mode

Analog RGB or component (Y, R-Y and B-Y) signals

Analog RGB/component input connectors from video equipment can be input through these

Input

The signal normally scanned outside of the screen can be monitored in the underscan mode.

RGB scanning lines may appear on the top edge of the When the monitor is in the underscan mode, the dark screen. These are caused by an internal test signal, rather than the input signal.

> and the luminance signal (Y), can be input through this two signals, which tends to occur in a composite video

connector, eliminating the interference between the

signal, ensuring video quality.

When the EXT SYNC selector is in the on position,

External sync input

the monitor can be operated on the sync signal supplied from an external sync generator.

The video signal, split into the chrominance signal (C)

Y/C input connectors

connectors.

checked simultaneously in the H/V delay mode. The horizontal and vertical sync signals can be Horizontal/vertical delay mode

automatically when the power is turned on, or manually by pressing the DEGAUSS button. Degaussing of the screen can be performed Auto/manual degaussing

You can set color temperature, CHROMA SET UP, and other settings by using the on-screen menus. On-screen menus

You can select the menu language from among five Five menu languages languages on the menu.

By using an MB-502B mounting bracket (for a 14-inch monitor, not supplied) or SLR-103A slide rail (for a 20-inch monitor, not supplied), the monitor can be EIA standard 19-inch rack mounting mounted in an EIA standard 19-inch rack.

For details on mounting, refer to the instruction manuals supplied with the mounting bracket kit or slide rail kit.

SDI (Serial Digital Interface) Kit

When the serial number of the BKM-101C you want to connect is less than 2,010,000, an optional connecting By using the following optional SDI Kits, the monitor can display SMPTE 259M 4:2:2 serial digital signal - BKM-101C: Component SDI Kit (for video) Component SDI Kit (for audio) from a digital VCR. (ex. Sony 4:2:2 VCR) - BKM-102:

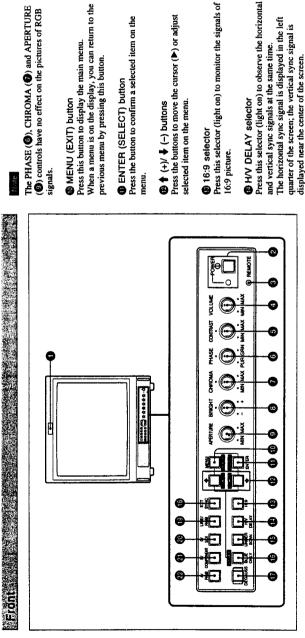
harness (part no. 1-900-230-35) will be required.

personal computers via the RS-422A serial interface. Interface Kit, the monitor can be controlled from By using the optional BKM-103 Serial Remote Serial Remote Interface Kit

<sup>&</sup>quot;Trinitron" is a registered trademark of Sony Corporation. \_

The NTSCa. system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43MHz. When
an NTSC recorded video program is played back with a Trident (PAL/SECAM/NTSCa.) VTR, the NTSCa. signal is

# Location and Function of Parts and Controls



monitor is selected, indicating that the picture is being Lights up when the video camera connected to this Tally lamp recorded.

For details on how to light the tally lamp, see page 19.

Depress to turn on the monitor. The indicator will light POWER switch and indicator 0

cable to the REMOTE connector. The controls on the Lights up when you select ON on the USER PRESET front panel do not work when this indicator lights up. menu (see page 13), or when you connect a supplied For details on how to connect the cable, see page 19. B REMOTE indicator

Furn this control clockwise or counterclockwise to obtain the desired volume. **O VOLUME** control

**GCONTRAST** control

Turn this control clockwise to make the contrast higher or counterclockwise to make it lower.

NTSCAA color systems. Turn it clockwise to make the skin tones greenish or counterclockwise to make them This control is effective only for the NTSC and O PHASE control

Furn this control clockwise to increase the color intensity or counterclockwise to decrease it.

"chroma" and "phase" adjustments and observation

of VCR noise.

signals.)

monochrome picture on the screen. This facilitates

Only blue signal is displayed as an apparent

 As the BLUE ONLY selector, press this selector (light on) to eliminate the red and green signals. ("Phase" adjustment is effective only for the NTSC

Turn this control clockwise to increase the brightness or counterclockwise to decrease it.

BRIGHT (brightness) control CHROMA control purplish.

settings by pressing this button when a menu is on demagnetized. Wait for 10 minutes or more before Press this button momentarily. The screen will be · As the RESET button, you can reset the menu DEGAUSS button using this button again. Turn this control clockwise to increase sharpness or

counterclockwise to decrease sharpness.

APERTURE control

EXT SYNC (external sync) selector

Set this selector to the off position (light off) to operate the monitor on the sync signal from the displayed video signal

Set this selector to the on position (light on) to operate the monitor on an external sync signal through the EXT SYNC connector.

LINE/RGB input selector

monitor the signal through the LINE A, LINE B or Press this selector to select the input to be monitored. · Set this selector to the off position (light off) to LINE C connectors.

monitor the signal through the RGB/COMPONENT · Set this selector to the on position (light on) to

C/SDI selector

LINE position (light off), press this selector (light When the LINE/RGB input selector is set to the on) to monitor the signal through the LINE C

RGB position (light on), press this selector (light on) to monitor the SDI signal (optional kits are required). When the LINE/RGB input selector is set to the

B/COMPONENT selector

• When the LINE/RGB input selector is set to the LINE position (light off), press this selector (light on) to monitor the signal through the LINE B

RGB position (light on), press this selector (light on) to monitor the component signal through the RGB/ · When the LINE/RGB input selector is set to the COMPONENT connectors.

The display size is reduced by approximately 5% so

that four comers of the raster are visible.

BLUE ONLY selector

RESET button

Press this selector (light on) for underscanning.

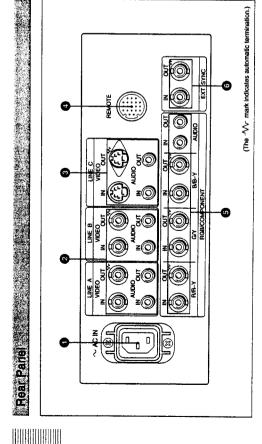
**(B)** UNDER SCAN selector

A/RGB selector

LINE position (light off), press this selector (light · When the LINE/RGB input selector is set to the on) to monitor the signal through the LINE A

RGB position (light on), press this selector (light on) to monitor the RGB signal through the RGB/ · When the LINE/RGB input selector is set to the COMPONENT connectors. connectors.

# Location and Function of Parts and Controls



Connect the supplied AC power cord to this socket and AC IN socket

to a wall outlet.

Iwo groups (A and B) of line input connectors for the composite video and audio signals and their loop-LINE A, LINE B connectors through output connectors.

off) and press the A/RGB or B/COMPONENT selector set the LINE/RGB selector to the LINE position (light To monitor the input signal through these connectors, (light on).

VIDEO IN (BNC)

Connect to the video output of video equipment, such For a loop-through connection, connect to the video as a VCR or a color video camera. output of another monitor.

VIDEO OUT (BNC)

Loop-through output of the VIDEO IN connector. Connect to the video input of a VCR or another When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN (phono jack)

For a loop-through connection, connect to the audio microphone via a suitable microphone amplifier. Connect to the audio output of a VCR or to a output of another monitor.

When the EXT SYNC selector is set to the off position

R/R-Y IN, G/Y IN, B/B-Y IN (BNC)

(light off), the monitor operates on the sync signal

from the G/Y channel.

AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input of a VCR or another monitor.

Connect to the Y/C separate output of a video camera, VCR or other video equipment. For a loop-through connection, connect to the Y/C Y/C IN (4-pin mini-DIN) **® LINE C connectors** 

Connect to the R-Y/Y/B-Y component signal outputs

To monitor the component signal

of a Sony Betacam video camera, etc.

Connect to the analog RGB signal outputs of a video

camera, etc.

To monitor the RGB signal

Connect to the Y/C separate input of a VCR or another When the cable is connected to this connector, the 75-Loop-through output of the Y/C IN connector. Y/C OUT (4-pin mini-DIN)

ohm termination of the input is automatically released, and the signal input to the Y/C IN connector is output

from this connector.

Connect to the R-Y/Y/B-Y component signal inputs of To output the component signal a Betacam video recorder, etc. Connect to the audio output of a VCR or a microphone

Connect to the audio output of video equipment when the analog RGB or component signal is input. AUDIO IN (phono jack)

Loop-through output of the AUDIO IN connector.

AUDIO OUT (phono jack)

(via a suitable microphone amplifier).

AUDIO IN (phono jack)

Connect to the audio input of a VCR or another

monitor.

Loop-through outputs of the AUDIO IN connector. AUDIO OUT (phono jack)

© EXT SYNC (external sync) connectors

front panel will be turned on and off by the connected

equipment. This connector can also be used for

connecting a remote control unit.

For details on the pin assignment of this connector, see

page 19.

special-effect generator, etc. The tally lamp on the

Connect to the tally output of a control console,

BEMOTE connector (20-pin)

When this monitor operates on an external sync signal, Press the EXT SYNC selector (light on) to use the sync signal through this connector.

connect the reference signal from a sync generator to this connector. Loop-through output of the IN connector. Connect to the external sync input of video equipment to be synchronized with this monitor.

RGB signal or component signal input connectors and

their loop-through output connectors.

B RGB/COMPONENT connectors

To monitor the input signal through these connectors, set the LINE/RGB selector to the RGB position (light

on), and press the A/RGB or B/COMPONENT

selector (light on).

ohm termination of the input is automatically released, and the signal input to the IN connector is output from When the cable is connected to this connector, the 75this connector.

> Connect to the analog RGB signal inputs of a video To output the RGB signal printer or another monitor.

When the cables are connected to these connectors, the

released, and the signal inputs to the R/R-Y IN, G/Y

IN, B/B-Y IN connectors are output from these

75-ohm termination of the inputs is automatically

Loop-through outputs of the R/R-Y IN, G/Y IN, B/B-

f IN connectors.

separate output of a VCR or another monitor.

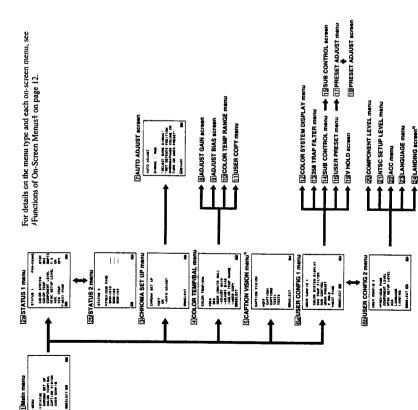
R/R-Y OUT, G/Y OUT, B/B-Y OUT (BNC)

# Using On-Screen Menus

You can make various settings and adjustments of the monitor using the on-screen menus.

# On Screen Menu Configuration

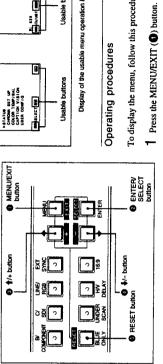
On-screen menu tree-chart



# Operation through On-Screen Menus

Menu operation buttons

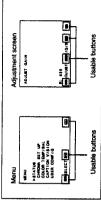
There are five menu operation buttons on the front panel of the monitor.



The following table shows how these five buttons function when using the menus.

	Button	To select menu flom:
	2	o adus the tem selected
•	MENU	return to the previous menu
• •	EXIT	return to the previous menu
6	ENTER	decide a selected item
_	SELECT	select an adjustment item
9	+	move the cursor (V) upwards
		increase selected value
(	-	move the cursor (V) downwards
•		decrease selected value
9	6 RESET	reset current settings to the factory

adjustment screens are displayed at the bottom of the screen. You can perform menu operation using the The buttons that can be used on the menus and displayed buttons.



Display of the usable menu operation buttons

### Operating procedures

To display the menu, follow this procedure.

MENU ([1]: main menu) appears.

2 Move the cursor (>) to the desired setting menu by pressing the **√**/- or **↑**/+ (**②**, **③**) button.

3 Press the ENTER/SELECT (2) button.

The setting menu selected in step 2 appears.

♣ Move the cursor (►) to the desired item by pressing the ♦/- or ↑/+ (♠, ♠) button.

Press the ENTER/SELECT (2) button.

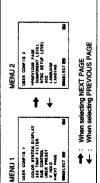
The adjustment screen or setting menu selected in step 4 appears.

For detailed information of menus, see Functions of On-Screen Menus? on page 12.

⑤ CAPTION VISION menu is provided with PVM-14M4U/14M2U/20M4U/20M2U only. 
図 LANDING screen is provided with PVM-20M4U/20M4E only.

### Using On-Screen Menus

Select NEXT PAGE on the menu to display the next To display the next (or previous) page of the page and PREVIOUS PAGE on the menu to display the previous page.



How to display the next or the previous page

screen on this menu by using the 1+, 1/+, 1/- and

ENTER/SELECT buttons.

You can select an item or enter an adjustment

Setting menu

You can confirm the current settings.

Status menu

setting menu. Main menu

> Each time you press the MENU/EXIT ( button, the To close the menu (to return to the regular displayed. Press the MENU/EXIT (1) button on-screen menu returns to the one previously repeatedly until the regular screen appears. screen)

For PVM-14M4E/14M2E/20M4E/20M2E: For the first time when the monitor is turned on, the LANGUAGE menu (23) will appear on the screen. So, select the language you want to use.

2a STATUS 1 menu Shows the current settings.



1 Move the cursor (V) to the desired language by pressing the 4/- or 1/+ (0, 0) button.

Press the MENU/EXIT (1) button. N



Unless you press the MENU/EXIT (1) button in the procedure above, the LANGUAGE menu will always appear whenever you turn on the monitor.

# Eunctions of On-Screen Menus

There are four types of on-screen menus.

[6b] USER CONFIG 2 menu Select an item to adjust on the menus and screens (20 through [24]). To go to the USER CONFIG 1 menu select PREVIOUS PAGE. You can enter another menu such as status menu or

press ENTER/SELECT to start automatic "chroma" [7] AUTO ADJUST screen Select the color bar signal (full, SMPTE, EIA) and To activate these adjustments, select ON on the CHROMA SET UP menu ([3]). and "phase" (NTSC signal only) adjustments.

BADJUST GAIN screen Adjust GAIN in USER mode.

10 COLOR TEMP RANGE menu 9 ADJUST BIAS screen Adjust BIAS in USER mode.

([ ] indicates the factory setting.)

adjustments you made remain unchanged until next change even if you turn off the power.

You can make adjustments on this screen. The

Adjustment screen

Select another menu and press ENTER/SELECT to go

1 Main menu

to the menu.

Select the color temperature range in USER mode. [5000K-10000K]

Store the factory setting of D65 or D93 as the value for 11 USER COPY menu USER mode.

the color system type being used appears on the screen [AUTO] Select the color system type. When AUTO is selected, 12 COLOR SYSTEM DISPLAY menu each time you change the signal input.

[OFF] Color spill or color noise may be eliminated if you 13358 TRAP FILTER menu select ON (NTSC signal only). Normally select OFF.

"phase" (NTSC signal only) adjustments done on the AUTO ADJUST screen ([7]).

③CHROMA SET UP menu Select ON on this menu to activate "chroma" and

(원 STATUS 2 menu Shows what optional kit is installed in the monitor.

4]COLOR TEMP/BAL menu Select the color temperature from among D65, D93 and USER. USER is set to D65 as the factory setting.

You can adjust or change the color temperature in USER mode (a measuring instrument is required).

[4]SUB CONTROL menu Select an item (CONTRAST, BRIGHT, CHROMA and PHASE controls on the front panel) to finely adjust on the SUB CONTROL screen ([5])

[D65]

Finely adjust the selected item on the SUB CONTROL **15SUB CONTROL screen** 

Select an item to adjust on the menus and screens (12

6a USER CONFIG 1 menu

through [19]). To go to the USER CONFIG 2 menu,

select NEXT PAGE.

CHROMA and PHASE control) has a click position at the center of its adjustment range. You can adjust the menu (14). Each control (CONTRAST, BRIGHT, setting of the click position with this feature.

If you select ON on this menu, the REMOTE indicator lights up and the controls on the front panel do not work. The monitor operates with the user preset 16USER PRESET menu

To adjust the user preset settings, select the PRESET ADJUST menu ([17]). You can preset the BRIGHT, CHROMA, PHASE, TPRESET ADJUST menu

CONTRAST, VOLUME, and APERTURE controls to a desired level and can use these settings by selecting PHASE, CONTRAST, VOLUME, and APERTURE Adjust the selected item (BRIGHT, CHROMA, control) on the PRESET ADJUST menu ([17]) ON on the USER PRESET menu (16 18 PRESET ADJUST screen

When you cannot read the display, select the input that Adjust the vertical hold if the picture rolls vertically. 19V HOLD screen is not connected.

Select the component level from among three modes. For PVM-14M4U/14M2U/20M4U/20M2U for 100/7.5/75/7.5 signal N10/SMPTE for 100/0/100/0 signal for 100/0/75/0 signal 20 COMPONENT LEVEL menu BETA 7.5 BETA 0

**BETA 7.5**] (N10/SMPTE) For PVM-14M4E/14M2E/20M4E/20M2E

[5]CAPTION VISION menu This menu is provided only for PVM-14M4U/14M2U/ 20M4U/20M2U. The monitor can display the signal with Caption

Vision. To display it, select the caption type in this

### Using On-Screen Menus

21 NTSC SETUP LEVEL menu

The 7.5 setup level is mainly used in north America. Select the NTSC setup level from two modes. The 0 setup level is mainly used in Europe.

For PVM-14M4U/14M2U/20M4U/20M2U For PVM-14M4E/14M2E/20M4E/20M2E

[7.5] [0]

超ACC menu Set ACC (Auto Color Control) circuit on or off. When the fine adjustment is necessary, select OFF on the

NO. 23LANGUAGE menu Normally select ON. ACC menu.

languages (English, German, French, Italian, Spanish). [ENGLISH] You can select the menu language from among five

24LANDING screen

DEGAUSS button, you can adjust the landing so as to This menu is provided only for PVM-20M4U/20M4E. The following two methods are available to adjust the If the color is not uniform even after you press the obtain color uniformity on this screen.

When the signals of the horizontal lines are input landing.

Press the \$\int \- or \$\frac{1}{4} + button until the lines are and displayed:

When the signals of the white color are input and displayed on the screen as horizontally as possible. displayed:

Press the \$\int\{-\ \text{or} \$\frac{4}{4}\} button until the white color on the screen become as uniform as possible.

To reset the setting to standard (00), press the RESET button.

### Connections

# How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the AC IN socket and to a wall outlet.

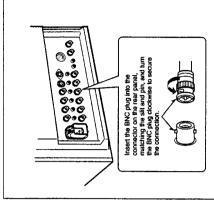
Pull out the AC plug holder while pressing the lock To remove the AC power cord

# How to Connect a Cable to a BNC Connector

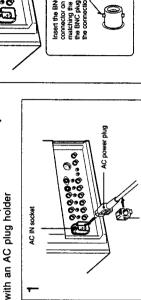
Connect a coaxial cable with the BNC plugs to the BNC connectors on the rear panel as illustrated below.

to a wall outlet

to AC IN



To connect an AC power cord securely



S

Plug the power cord into the AC IN socket. Then, attach the AC plug holder (supplied) on top of the AC power

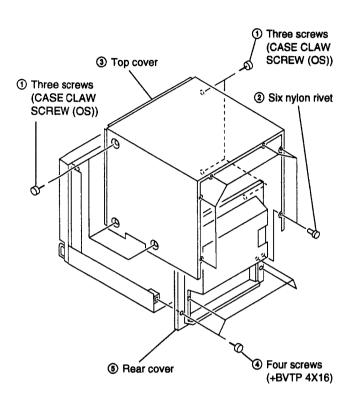
AC plug holder

Slide the AC plug holder over the cord until it locks.

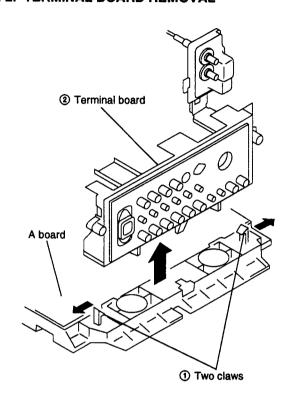
4

### SECTION 2 DISASSEMBLY

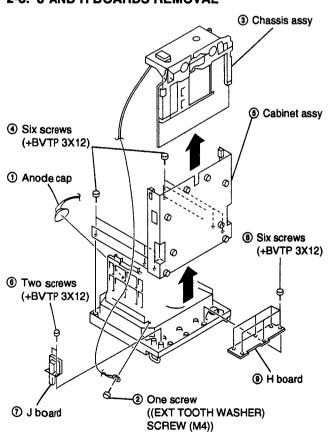
### 2-1. TOP COVER AND REAR COVER REMOVAL



### 2-2. TERMINAL BOARD REMOVAL

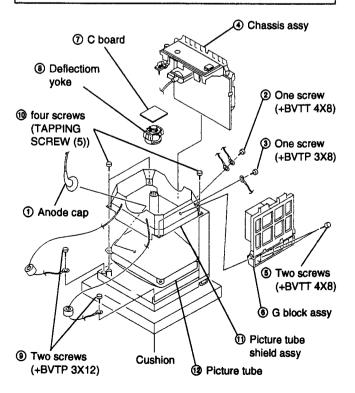


### 2-3. J AND H BOARDS REMOVAL

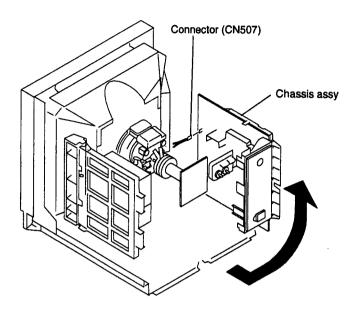


### 2-4. PICTURE TUBE REMOVAL

When exchange the Picture tube of PVM-14M4 series and if the magnet had stuck on the neck of the Picture tube, peel it.

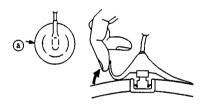


### 2-5. SERVICE POSITION

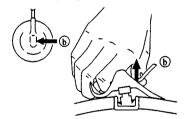


### • REMOVAL OF ANODE-CAP

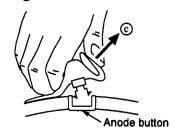
NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.



### • REMOVING PROCEDURES



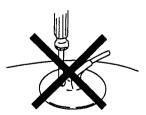
① Turn up one side of the rubber cap in the direction indicated by the arrow ②.



- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow **(b)**.
- When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow .

### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anodecaps! A material fitting called as shatter-hook terminal is built in the rubber.
- 3 Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.





### SECTION 3 SET-UP ADJUSTMENTS

### 3-1. PREPARATIONS (1)

### Service Mode

This set is provided with a switch for service on the front panel that can be used to make various adjustments. The operation method of this switch is explained in detail below.

### 1. Entering the service mode

Simultaneously press the [ENTER] key and the [DEGAUSS] key shown on the display of the menu.

### 2. Service mode display

(1)	(5)	(4)	(3)	(6)
(2)				

Range of Service Mode Display

- The service items are largely classified into 16 types displayed by titles.
- (2) The names of the service items or READ/WRITE guidance, etc., are displayed. The names are displayed to the left and the guidance to the right.
- (3) This is the serial number for each of the service items. 1-120.
- (4) This is the adjustment data for the service items that are now stored in the RAM. Adjustments can be made by changing these values, but as long as nothing is written to the ROM the adjustment values will be erased by turning off the power or by reading, so please be careful.
- (5) When the adjustment data that is now displayed is identical with the data in the ROM, the cursor (►) is displayed.
- (6) The present status is displayed.
  - [\*]: Writing to the ROM. Make sure not to turn off the power while this display is on.
  - [?]: ROM reading error. In this case, an image is output with the standard adjustment data that the microcomputer itself possesses. [¿]: Problem in the I2C bus.

### 3. Finishing the service mode

Simultaneously press the [ENTER] key and the [DEGAUSS] key shown on the display of the menu.

### 4. Easy ON/OFF of the service mode

If once entering the service mode after having turned on the power, easy ON/OFF is possible by once more pressing the A, B or C switch on the front panel (the LED lights) as long as the power is not turned off or as long as the service mode is not finished.

### 5. Change of position of the service mode display

If the switch is continuously pressed when turning on in the above easy mode, the display position moves in the V direction. This method is used when the display is outside of the effective screen area.

### 6. Change of service items

The items are returned with the [MENU] key and forwarded with the [ENTER] key. When a key is continuously pressed, the operation will be repeated.

### 7. Change of service data

The service data is made larger with the [†] key and smaller with the [‡] key. When continuously pressing the keys, the operation will be repeated.

### 8. Reading of service data

When reading data from the ROM to the RAM, press the [B/O] key once and check than the READ display is shown in the guidance, and then press the [B/O] key once again. The adjustment data that is written will return to its previous state, so please be careful.

### 9. Writing of service data

When writing data from the RAM to the ROM, press the [DE-GAUSS] key once and check that the WRITE display shown in the guidance, and then press the [DEGAUSS] key once again. Not only the displayed data will be written, but all data, so please be careful.

### 10. Carrying out FACTORY RESETTING

In case the adjustment data has been destroyed for some reason, and you keep pressing the [B/O] key at the beginning of the above reading, the READ guidance will change to FACTORY RESET guidance in approximately 3 seconds so that the factory resetting can be carried out. By once again pressing the [B/O] key after this, resetting will be carried out ([\*] will be displayed as status) and factory resetting will be executed. However, in case the data available at the time of shipment from the factory has been destroyed, or if the ROM has been replaced, etc., or if factory setting mentioned later on has been carried out, factory resetting is executed.

### 11. Carrying out FACTORY SETTING

Make sure to make possible the above factory resetting by making a copy of the adjustment data when replacing the ROM. If you keep pressing the [DEGAUSS] key at the beginning of the above writing, the WRITE guidance will change into FACTORY RESET guidance after approximately 3 seconds. By once again pressing the [DEGAUSS] key after this, setting will be carried out ([\*] will be displayed as status) and the data will be copied. By carrying out this operation, the selection items of the menu and the adjustment values will be reset to the standard conditions, so please be careful. If this operation is carried out once, it cannot be carried out again, but the FACTORY SET FLAG (No. 120) in the service mode can be set to 1.

Table 3-1 Table map (1)

\*\* Signify (The setting is vary with the destination.)
Refer to the "Table 3-1 Table map (2)."

No.	SERVICE ITEM	<u> </u>	MAX	STD	No	CERVICE ITEM		lassy	Loro
1	NOR 50 DEF	H FREQUENCY	255	85	No. 61	SERVICE ITEM C/T1 D??	BIAS <red></red>	MAX	STD
2	NOTION DE	VIDEO PHASE	255	139		GIIDEE		1023	376
3		V SIZE	255	139	62 63		BIAS <green></green>	1023	512
4	NOR 60 DEF	H FREQUENCY					BIAS <blue></blue>	1023	396
5	NOR 60 DEF	VIDEO PHASE	255	96	64		GAIN <red></red>	1023	660
			255	115	65		GAIN <green></green>	1023	620
6	NODDEE	V SIZE	255	137	66		GAIN <blue></blue>	1023	602
7	NOR DEF	V CENTER	255	103	67		B/O <red></red>	255	115
8		H SIZE	255	108	68		B/O <green></green>	255	115
9		PIN PHASE	255	128	69	C/T2 D??	3200K SW	1	0
10	_	PIN AMP	255	128	70		BIAS <red></red>	1023	256
11		LOWER PIN AMP	255	128	71		BIAS <green></green>	1023	512
12		UPPER PIN AMP	255	128	72		BIAS <blue></blue>	1023	512
13		SEXY	255	128	73		GAIN <red></red>	1023	602
14		V LINEARITY	255	120	74		GAIN <green></green>	1023	700
15		V BOW	ස	32	75		GAIN <blue></blue>	1023	672
16		LOWER BOW	63	322	76		B/O <red></red>	255	95
17		V ANGLE	63	32	77		B/O <green></green>	255	108
18	U/S DEF	V SIZE <50>	255	100	78	W/B	SUB CON <4 :3.N OR MAL>	255	178
19		V SIZE <60>	255	100	79		SUB CON <4:3.HN/ DELAY>	255	97
20	-	H SIZE	255	118	80		SUB CON <16 : 9,NORMAL>	255	150
21		PIN PHASE	255	128	81		SUB CON <16 :9,H/V D ELAY>	255	78
22	LVt	PIN AMP	255	100	82		SUB BRIGHT	255	69
23	16 : 9 NOR DEF	V SIZE <50>	255	72	83		USER B/O <red></red>	255	115
24	10 10110112	V SIZE <60>	255	60	84				
25		PIN PHASE	255	135	85	OTHER	USER B/O <green></green>	255	115
26		PIN AMP				UINER	LANDING	255	64
27	16 : 9 U/S DEF	V SIZE <50>	255	90	86		V HOLD	255	128
	10 .9 U/S DEF		255	ଖ	87		H BLANKING	255	73
28		V SIZE <60>	255	39	88		V BLANKING <50>	255	82
29		PIN PHASE	255	135	<b>æ</b>		16:9 BLANKING START <50>	255	32
30		PIN AMP	255	65	90		16:9 BLANKING END <50>	255	176
31	COMPONENT	SUB PHASE	255	130	5		V BLANKING <60>	255	161
32		SUB CHROMA <normal></normal>	255	182	82		16:9 BLANKING START <50>	255	42
33		SUB CHROMA <smpte></smpte>	255	170	93		16:9 BLANKING END <50>	255	226
34		R-Y LEVEL	255	163	94		H DELAY	255	142
35	NTSC	BURST GATE PULSE WIDTH	255	52	95		V DELAY	255	104
36		CRYSTAL	255	59	96		HP POSITION	255	145
37		PHASE <normal></normal>	255	80	97		HP WIDTH <normal></normal>	255	148
38		PHASE <acc off=""></acc>	255	96	98		HP WIDTH <h delay="" v=""></h>	255	62
39		B-Y PHASE	255	162	99	SYSTEM	SDI AUDIO	7	5
40		CHROMA <normal></normal>	255	98	100		358 TRAP FILTER	1	0
41		CHROMA <acc off=""></acc>	255	27	101		ACC	1	0
42		R-Y LEVEL	255	98	102		CAPTION VISION	7	0
43	NTSC 443	CRYSTAL	255	82	103		COMPONENT LEVEL	3	*
44		PHASE <normal></normal>	255	62	104	****	NTSC SETUP LEVEL	1	*
45		PHASE <acc off=""></acc>	255	64	105		CHROMA SET UP	1	0
46		B-Y PHASE	255	181	106		COLOR SYSTEM DISPLAY	3	-
47		CHROMA <normal></normal>	255	104	107		COLOR TEMPERATURE	3	0
48		CHROMA <acc off=""></acc>	255	36	108		USER PRESET		
49		R-Y LEVEL	255	100	109		LANGUAGE	1	0
	PAL	PHASE <normal></normal>	255	110				7	0
51	, /Th	PHASE <acc off=""></acc>	255	105	110		RGB SYNC	1	0
52					111		OPTION BOARD	7	٥
53		B-Y PHASE	255	122	112		AGING MODE	1	0
		CHROMA <normal></normal>	255	109	113		PAL-M	1	0
54		CHROMA <acc off=""></acc>	255	41	114		MODEL	31	*
55		R-Y LEVEL	255	121	115		COLOR TEMP DISP 1	127	*
56	SECAM	CHROMA	255	93	116		COLOR TEMP DISP 2	127	*
57		R-Y LEVEL	255	181	117		REMOTE ADDRESS	63	0
58		COLOR BALANCE <r-y></r-y>	255	118	118		RESERVED 1	1	0
59		COLOR BALANCE <b-y></b-y>	225	135	119		RESERVED 2	2	0
60	C/T1 D??	3200K SW	1	0	120		FACTORY SET FLAG	1	0

Table 3-1 Table map (2)

Model Name	Component level	NTSC Set-up level	Model	Color temp disp 1	Color temp disp 2
PVM-20M4U	1	1	0	65	93
PVM-20M2U	1	1	1	65	93
PVM-20M4J	2	0	2	93	65
PVM-20M4E	2	0	3	65	93
PVM-20M2E	2	0	4	65	93
PVM-14M4U	1	1	5	65	93
PVM-14M2U	1	1	6	65	93
PVM-14M4J	2	0	7	93	65
PVM-14M1J	2	0	8	93	65
PVM-14M4E	2	0	9	65	93
PVM-14M2E	2	0	10	65	93
PVM-20M4A	2	0	11	65	93
PVM-14M4A	2	0	12	65	93
PVM-14M2A	2	0	13	65	93
PVM-14M4B	1	1	14	65	93
BVM-14M4DJ	2	0	15	93	65
BVM-14M4DE	2	0	16	65	93
PVM-20M4T	2	0	17	93	65
PVM-14M4T	1	0	18	93	65

### 3-2. Preparation (2). Initialization

 Supply composite video or component signals as shown in Table 3-2.

Table 3-2

Signal		Details of signal	Standard level P-W
Composite video	358NT )	100% white	0.714V
Video	443NT }	75% white	0.536V
	PALM PAL	100% white	0.7V
	SECAM	75% white	0.525V
		100% white Y	0.7V
	BETA0	75% white Y	0.525V
		75%color B-Y, R-Y	0 = 1/
Component		(P-P for this item only)	0.7V
·	SMPTE	100% white Y	0.7V
		75% white Y	0.525V
		75%color B-Y, R-Y	0.525V
		(P-P for this item only)	
Voice	e/sound	−5dBs	0.436Vrms

<sup>\*</sup> Refer to Table 3-3 for groups of models.

Table 3-3

Group of models		Models	
1	PVM-14M4U PVM-14M4A	PVM-14M4J	PVM-14M4E
2	PVM-14M2U	PVM-14M2E	PVM-14M2A
3	PVM-14M1J		
4	PVM-20M4U PVM-20M4A	PVM-20M4J	PVM-20M4E
5	PVM-20M2U	PVM-20M2E	

<sup>\*</sup> In this chapter, indicates the control items in the service mode.

Example: 60 H-FREQ

### 3-3. Writing model data

 Write model data on respective models in the service mode at the location of No.114 MODEL in accordance with Table 3-4.

Table 3-4

Model	Model data
PVM-20M4U	0
PVM-20M2U	1
PVM-20M4J	2
PVM-20M4E	3
PVM-20M2E	4
PVM-14M4U	5
PVM-14M2U	6
PVM-14M4J	7
PVM-14M1J	8
PVM-14M4E	9
PVM-14M2E	10
PVM-20M4A	11
PVM-14M4A	12
PVM-14M2A	13

Write the following data in the service mode at the location of No.115 COLOR TEMP DISP 1.

COLOR TEMP DISP 1

U/C, AEP <u>65</u> J <u>93</u>

Write the following data in the service mode at the location of No.116 COLOR TEMP DISP 2.

**COLOR TEMP DISP 2** 

U/C, AEP <u>93</u> J <u>65</u>

\* Standard inspection state

Unless otherwise specified in this manual, make adjustment under the following conditions:

APERTURE	MIN	(Turn FLAT fully counterclockwise.)
BRIGHT	50%	(Center click)
CHROMA	50%	(Center click)
PHASE	50%	(Center click)
CONTRAST	80%	(Center click)
VOLUME	50%	

<sup>\*</sup> Before turning off the power after adjustment in the service mode, write the adjustment data. When the power is turned off before writing, adjusted data will all be lost.

### 3-4. Picture output

### 1. AC input voltage setting

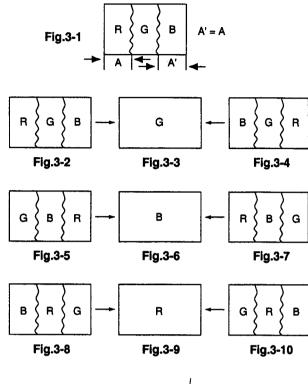
- Input VIDEO signals and AUDIO signals to respective terminals on the connector panel.
- 2. Set the sliduck AC voltage as shown in Table 3-5.

Table 3-5

Group o	Voltage	
PVM-14M4J(J) PVM-14M1J(J)	PVM-20M4J(J)	AC 100±3V (Distortion factor:3% max.)
PVM-14M4U(U/C) PVM-20M2U(U/C)	PVM-14M2U(U/C) PVM-20M4U(U/C)	AC 120±3V (Same as above)
PVM-14M4E(AEP) PVM-14M2A(AUS) PVM-20M4E(AEP) PVM-20M4A(AUS)	PVM-14M2E(AEP) PVM-14M4A(AUS) PVM-20M2E(AEP)	AC 220±3V (Same as above)

### 3-5. Landing adjustment

- 1. CONT ... MAX BRT ... Conspicuous position
- 2. Roughly adjust the white balance, G2, and convergence.
- Switch the rotary SW of the single color switch to change the color into green only.
- 4. Adjust the purity knob so that the green will come to the center of the screen. Make R and B almost identical. (Fig. 3-1)
- 5. Switch to B only, R only, and G only and verify each. (Figs.3-1, 3-2, and 3-3)
- Bring the deflection yoke gradually forward and adjust the deflection yoke so that R and B on both sides of the screen will be green. (Fig. 3-2 → Fig. 3-3)
- If the deflection yoke comes forward too much, the pattern shown in Fig.3-4 will appear. If so, move the deflection yoke backward. (Fig.3-4 → Fig.3-3)
- 8. Switch the single color switch to B and verify the single color. (Fig. 3-6)
- Switch the single color switch to R and verify the single color. (Fig.3-9)
- 10. When two colors are mixed, set the mixed color as the standard, and repeat operations 6 and 7.
- 11. Switch to an all-white signal and check the uniformity.
- 12. When the deflection yoke position is determined, fasten it with the fixture.



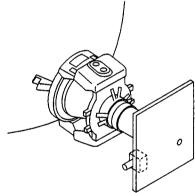


Fig.3-11

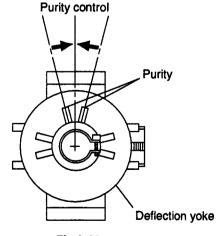


Fig.3-12

Note: Attach NTC magnets for 20M4 to the locations shown in Fig.3-13.

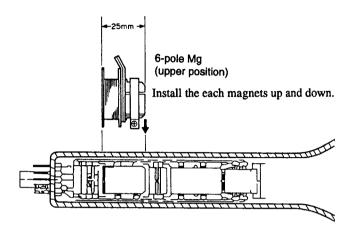


Fig. 3-13

### 3-6. Convergence adjustment (1)

- Input a dot pattern signal. CONT ... Conspicuous position BRT ... MIN
- Align the horizontal R, G, and B dots at the center of the screen with the H-START VR.
- \* When H-CENT is changed after H-STAT adjustment, readjust H-STAT. (H-STAT will change by means of H-CENT VR.)
- 3. Align the vertical location of R, G, and B in the center of the screen with the V-STAT Mg. (Fig. 3-14, 3-15)
- \* After V-STAT adjustment, paint-lock the knob.

### V-STAT Mg knob

While keeping the angles A and B equal (I = I'), align the vertical convergence.

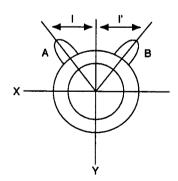


Fig. 3-14 Good example

If the A and B knobs are not symmetrical ( $I \neq I'$ ), the focus may deteriorate, beam striking or other adverse effects may occur.

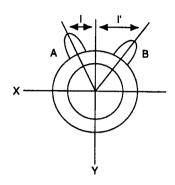


Fig. 3-15 Bad example

4. For HMC, use the BMC Mg to adjust the R and B dots so that they will be symmetrical horizontally with respect to the G dot.

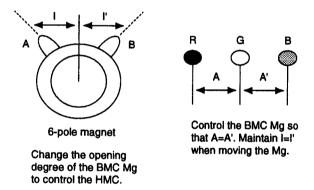


Fig. 3-16

For VMC, use the MBC Mg to adjust the R and B dots so that they will be symmetrical vertically with respect to the G dot.

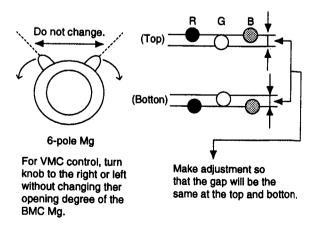


Fig. 3-17

6. Repeat adjustments 2. to 5.

- \* The above adjustment may affect the landing, so after adjustment, check the landing again.
- 7. Paint-lock the knobs after adjustment.

### 3-7. Deflection yoke neck rotation adjustment

- If there is nonconvergence on both sides of the X or Y axis of the screen, turn the neck of the deflection yoke in the direction of the arrow to hold the nonconvergence for the entire CRT screen within the tolerance.
- \* Applicable only to groups of models 1, 2, 3, and 5.
- misconvergence pattern

  Move the deflection yoke downward.

  B G R

  B G G G G B

  R G B

  R G B

  R G B

  R G B

  R G B

  R G B

Fig. 3-18

RGB

(3) Pattern of left-sided deflection yoke

(1) Reverse cross

Fig. 3-19

BGR

(2) Regular cross misconvergence

(4) Pattern of right-sided deflection yoke

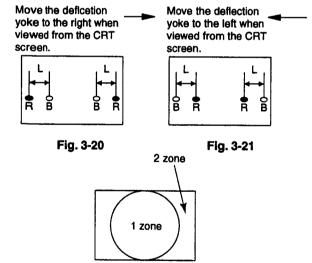


Fig. 3-23

- 2. Turn the neck of the deflection yoke to align the V pin vertically.
- \* Applicable only to group of models 4.

3. Insert the wedge between the deflection yoke and CRT funnel to lock the deflection yoke. (Fig. 3-24)



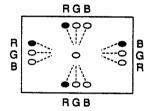
Groups of models 1,2,3,and 5 have been treated.



Group of models 4 have been treated.

Fig. 3-24

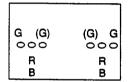
4. The following patterns cannot be corrected by turning the neck. (Figs.3-25, 3-26, and 3-27)



\*Gun rotatuon

The X-axis and Y-axis beams are distorted on both sides.

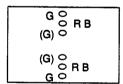
Fig. 3-25



\*HCR Large(Small)

The horizontal portion of the G raster is wider(narrower) than that of the RB raster on both sides of the screen.

Fig. 3-26



\*VCR Large(Small)

The vertical portion of the G raster is wider(narrower) than that of the RB raster on both sides of the screen.

Fig. 3-27

### 3-8. Convergence adjustment (2)

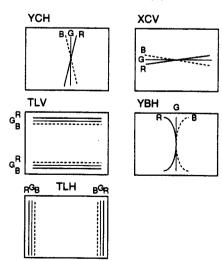


Fig. 3-28 Convergence compensation VR,coil,and compensator

Note: When adjustment is insufficient, use permalloy for perfect adjustment.

### 1. Group of models 4 (See Table 3-3.)

- 1. Input a cross-hatch signal.
- 2. Make adjustment with the TLV, YCH, YBH VR, and XCV coils of the deflection yoke to minimize nonconvergence.
- 3. When the nonconvergence of the TILT component is included in the horizontal convergence, make adjustment with the TLH compensator. (Fig.3-28)

### 2. Groups of models 1, 2, and 3 (See Table 3-3.)

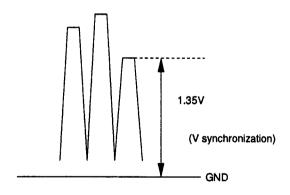
- 1. Input a cross-hatch signal.
- Make adjustment with the TLV, YCH VR, and XCV coils of the deflection yoke to minimize nonconvergence.
- When the nonconvergence of the TILT component is included inthe horizontal convergence, insert the TLH compensator into the deflection yoke for adjustment. (Fig.3-28)

### 3. Group of models 5 (See Table 3-3.)

- 1. Input a cross-hatch signal.
- 2. Make adjustment with the XCV coil of the deflection yoke to minimize nonconvergence.
- When the nonconvergence of the TILT component is included in the vertical convergence, insert the TLV compensator into the deflection yoke for adjustment. (Fig. 3-28)

### 3-9. G2 adjustment

- 1. Input a 525 monoscope signal.
- 2. Connect the probe of the oscilloscope to TP403 on the A board.
- 3. Measure the lowest reference pulse of the three.
- Make adjustment with SCREEN VR so that the left end of the waveform will be 1.35 V±0.05 V.



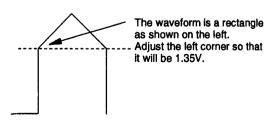


Fig. 3-29

### 3-10. White balance adjustment

- 1. Input a 525 monoscope signal. (Input from LINE A or B with no burst.)
- 2. Set as follows:

CONT: 0%

**BRT: 50%** 

 Adjust <u>SUB-BRIGHT</u> in the service mode so that the 20-tone gray scale will be as follows:

0 and 5 IRE  $\rightarrow$  Cut off

10 IRE → Slight glow

- 4. Input 525 all-white (COMPOSITE signal without burst).
- 5. Set CONT VR to 80%.
- Adjust the all-white luminance so that the screen luminance will be 3 NIT.
- Press MENU and select COL TEMP/BAL.
- 8. Select 6500K.

Set [3200K SW] to "0" for both 9300K and 6500K.

- 9. Put the unit into the service mode.
- 10. Adjust to the standard values with <RED> and <BLUE> of <a href="https://doi.or/10.1001/j.chm.nih.gov/blas">C/T1 6500K BIAS</a>] .

  Set cut-off to 3 NIT.

### <GREEN>

Group of models (Table 3-3)	Fix as follows:
2, 3, 5	"400"
1, 4	"512"

- 11. Switch the all-white signal luminance to 100 IRE.
- 12. Adjust to the standard values with <RED> and <BLUE> of <a href="C/T1 6500K GAIN">C/T2 6500K GAIN</a> .

  <Green>

Set it to <u>"700."</u>

- 13. Repeat adjustment (10, 11, and 12) until the adjustment is complete, and then write the adjustment data.
- 14. Press MENU and select COL TEMP/BAL.
- 15. Select 9300K.
- Adjust C/T2 9300K BIAS
   C/T2 9300K GAIN Or C/T1 9300K BIAS
   C/T1 9300K GAIN in the same manner as adjustments 1013.

### BIAS <GREEN>

Group of models (Table 3-3)	Fix as follows:
2, 3, 5	"400"
1, 4	"512"

GAIN <GREEN>
Fix it at "700."

### 3-11. Blue-only white balance adjustment

- Turn ON the blue-only of the user controller SW. (To set blue-only.)
- Input all-white (COMPOSITE signal without burst). The all-white signal luminance shall be 100 IRE. CONT: 80% BRT: 50%
- 3. Select COL TEMP/BAL.
- 4. Select 6500K.
- 5. Adjust to the standard values with C/T1 6500K B/O<RED> and C/T1 6500K B/O<GREEN> or C/T2 6500K B/O<RED> and C/T1 6500K B/O<GREEN> .
- 6. Select COL TEMP/BAL.
- 7. Select 9300K.
- 8. Adjust to the standard values with C/T2 9300K B/O<RED> and C/T2 9300K B/O<GREEN> or C/T1 9300K B/O<RED> and C/T1 9300K B/O<GREEN>
- Adjust the all-white signal luminance, and check that the white balance is satisfactory when the luminance of the screen is 8NIT.

### 3-12. SUB BRT adjustment

- 1. Input a 525 monoscope signal.
- 2. CONT ... MIN BRT .... CENTER (50&)
- 3. Select SUB BRIGHT in the service mode.
- Adjust SUB BRIGHT so that 10 IRE glows slightly and 0 IRE is cut off.

### 3-13. Focus adjustment

### 1. PVM-20M4 Series

- Adjust the H focus (upper side of focus pack) by means of a dot signal.
- Adjust the V focus (lower side of focus pack) by means of a dot signal.
- Turn the H focus fully clockwise when viewed from the front by means of a dot signal.
- Turn the H focus counterclockwise and focus well the dot in the center of the screen. When the dot is well focused, it will be divided into two sections.
- 5. Turn the H focus VR clockwise (returning direction) so that the dot will be as shown in Fig.3-30. At that time, both ends of the central section of the screen are in the same state.



Fig. 3-30

- Check that the resolution is more than 800 lines by means of a digital monoscope signal.
- Check that the magenta ring is unconspicuous by means of an all-white signal.



Fig.3-31 Movement of VR when viewed from the front

### 2. PVM-14M4 Series

- Adjust the H focus (upper side of focus pack) by means of a dot signal.
- 2. Adjust the V focus (lower side of focus pack) by means of a dot signal.
- Turn the H focus fully clockwise when viewed from the front by means of a dot signal.
- Turn the H focus counterclockwise and focus the dot in the center of the screen well. The dot signal is divided into two sections at that time.
- Turn the H focus VR counterclockwise so that the dost will be as shown in Fig.3-32. At that time, both ends of the central section of the screen are in the same state.



Fig. 3-32

- Check that the resolution is more than 800 lines by means of a digital monoscope signal.
- Check that the magenta ring is unconspicuous by means of an all-white signal.

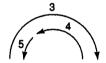
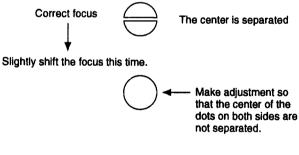


Fig.3-33 Movement of VR when viewed from the front

### 3. PVM-14M2 Series (CRT14MG)

Make adjustment so that the dots in the central section (right and left edges) will be undivided, respectively. (When well-focused, the dot is divided into two sections.)



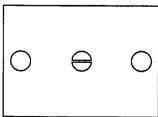


Fig. 3-34

### 4. PVM-20M2 Series

Focus the character "30" in the center of monoscope well as usualy.

### SECTION 4 SAFETY RELATED ADJUSTMENT

When the parts (with a mark on the circuit diagram) shown below are replaced, confirm the matters described in items 4-1 and 4-2 shown below.

### **■** R1536

R551, R506, R519, R518, R516, R515, R508, R517, R1560,
 R1537, C549, C512, C513, C523, C592, D501, D533, Q500,
 O511, IC500, and IC507

When the following parts are replaced, check the +B voltage: IC600, IC602, D610, C615, C631, C621, C632, and T603

### **Confirmation procedure**

1. Input 120 VAC.

- Input a monoscope signal, and minimize CONTRAST and BRIGHT.
- 3. Check that the voltage of the CN605 @ pin is 115.7 VDC.

### 4-1. CONFIRAMATION OF +B MAXIMUM

Standard: Less than 115.7 VDC(CN605 pin (4)) Check Condition Input voltage: 130 VAC

Note: Use NF Power Supply or make sure that distortion factor is

3% or less.

Input signal: Monoscope

Controls: BRT & CONT → Normal

### 4-2. CONFIRAMATION OF HOLD-DOWN CIRCUIT

Check Condition Input voltage: 130 VAC

Input signal: White &Dot

Controls: BRT & Cont → Max. & Min.

### 4-2-1.Hold-Down Circuit (+B)

- a) Adjust the beam current to 600±50µA with the pin ♠ of CN605 with the external DC power supply (less than 127.0 VDC)to the point just before the hold-down circuit works.

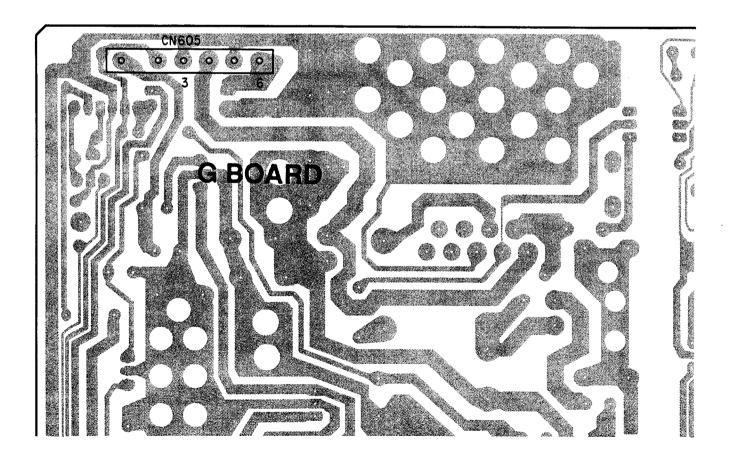
  Input Signal: White
- b) Adjust the beam current to 80±20µA with the pin ④ of CN605 with the external DC power supply (less than 127.0 VDC)to the point just before the hold-down circuit works. Input Signal: Dot

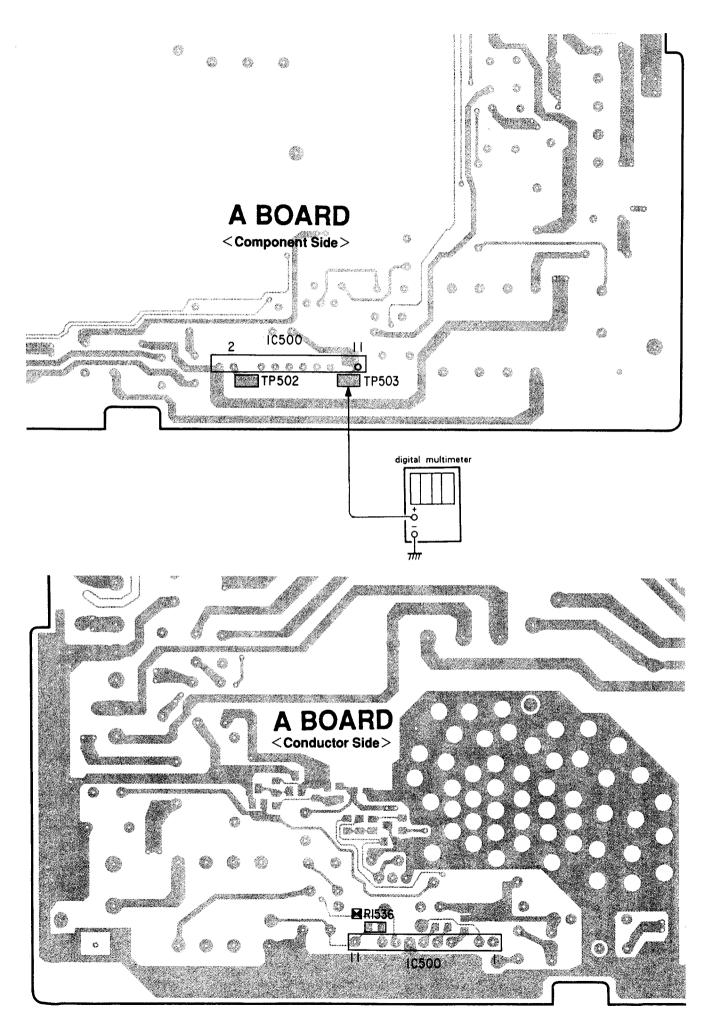
### 4-2-2. Hold-Down Circuit (3rd Wire voltage of FBT)

Check item: Check of pin ① of IC500 voltage: more than 110.0VDC

- a) Adjust the beam current to 600±50µA with the pin ① of IC500 with the external DC power supply (less than 141.0 VDC)to the point just before the hold-down circuit works.

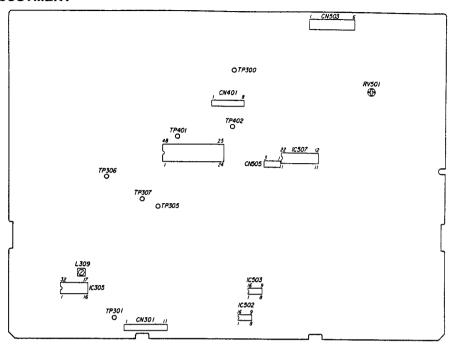
  Input Signal: White
- Adjust the beam current to 80±20μA with the pin ① of IC500 with the external DC power supply (less than 141.0 VDC) to the point just before the hold-down circuit works.
   Input Signal: Dot





### **SECTION 5 CIRCUIT ADJUSTMENTS**

### 5-1. A BOARD ADJUSTMENT



### 1. PREPARATION/SIGNAL SPECIFICATIONS

### 1. Signal specifications

Supply a composite video or component signals from the CN301 connector. Refer to Table 5-1 to take into consideration the effect on the Q board.

The level of the signal to supply should equal to values shown in Table 5-1 plus/minus 2% max.

Table 5-1

Signal		Details ofsignal	Standard level (Pedestal white)	Reduction rate %	Connector supply level (P.W)
		100% white	0.714V	93%	0.664V
	358NT )	75% white	0.536V	,	0.498V
Composite video (75% color	443NT }	Burst (Green section) (P-P for this item only)	286mV (632mV)	94% (94%)	269mV (594mV)
bar)		100% white	0.7V	*	0.651V
	PAL	75% white	0.525V	"	0.488V
	SECAM }	PAL burst (Green section) (P-P for this item only)	300mV (664mV)	94% (94%)	282mV (624mV)
		100% white	0.7V	94.8%	0.664V
	BETA 0	75% white	0.525	,	0.498V
Compo- nent		75% color B-Y, R-Y (P-P for this item only)	0.7V	,	0.664V
(75% color		100% white	0.7V	*	0.664V
bar)	er)	75% white	0.525V	•	0.498V
	SMPTE	75% color B-Y, R-Y (P-P for this item only)	0.525	,	0.498V

### 2. Preparation

In this chapter, indicates the control items in the service

Example: 60 H-FRQ

Write the applicable model data at the location of NO.114 MODEL in the service mode.

Group of models 4 ... 0

Group of models 5 ... 1

Group of models 1 ... 5

Group of models 2 ... 6

Group of models 3 ... 8

Refer to Table 5-2 for the following groups of models.

Table 5-2

Group of models		Models	
1	PVM-14M4U PVM-14M4A	PVM-14M4J	PVM-14M4E
2	PVM-14M2U	PVM-14M2E	PVM-14M2A
3	PVM-14M1J		
4	PVM-20M4U PVM-20M4A	PVM-20M4J	PVM-20M4E
5	PVM-20M2U	PVM-20M2E	

CONT 80% is the center click position of the user controller.

### 2. ADJUSTMENT OF DEFLECTION SYSTEM

### 1. Adjustment of horizontal oscillation frequency

- 1. Input a 525 monoscope signal.
- 2. CONT ... 80%
  - BRT .... 50%

3. Set the unit in the service mode.

 Connect the IC507 ① PIN on the A board to GND via the 100μ/ 16V chemical capacitor. (Use CN505③ PIN for GND.) Or insert the H-FREQ jig into CN505.

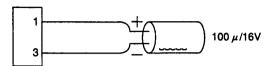


Fig.5-1 H-FREQ jig

- 5. Adjust 60 H-FREQ so that the slanting lines on the screen will be vertical. (Fig.5-2)
- 6. Input a 625 monoscope signal.
- 7. Adjust 50 H-FREQ so that the slanting lines on the screen will be vertical. (Fig.5-2)

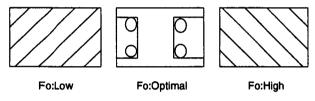


Fig.5-2

### 2. H BLANKING adjustment

- 1. Input a 525 monoscope signal.
- 2. CONT ... 80% BRT ... 50%
- 3. Set the unit in the service mode.
- 4. Observe the anode of TP300 or D516 with an oscilloscope, and adjust **H-BLANKING** so that the waveform will be as shown in Fig.5-3.

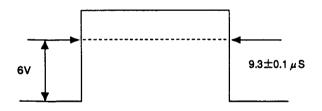


Fig.5-3

### 3. Picture phase adjustment

- 1. Input a 525 monoscope signal.
- 2. Set the unit in the UNDER SCAN mode.
- 3. CONT ... Min. BRT .... Max.
- 4. Set the unit in the service mode.
- Adjust <u>U/N H-SIZE</u> so that the white frame of the monoscope will be approx. 1 cm to the inside of the effective screen.
- 6. Turn RV501 (H-CENT) so that B = B'.
- 7. Adjust 60 VIDEO PHASE so that the signal area will be in the center (A = A') of the deflection area. (Fig.5-4)
- 8. Input a 625 monoscope signal.
- 9. Adjust 50 VIDEO PHASE in the same manner.

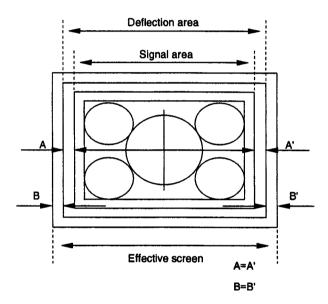


Fig.5-4

### 4. V BLANKING adjustment

- 1. Input a 525 monoscope signal.
- 2. Set the unit in the UNDER SCAN mode.
- 3. CONT ... Min. BRT ... Max.
- 4. Set the unit in the service mode.
- Adjust V-BLANKING <60> so that the white frame in the upper section of the monoscope will be about to be blanked.

Note: Blanking up to the point 1H away from the white frame is permissible, but the adjusting center should be up to the point 0.5H away from the frame.

- Cancel the UNDER SCAN mode, and set the unit in the normal 16:9 mode.
- Adjust 16:9 BLANKING START 60> and 16:9 BLANKING END 60> so
  that the number of frames in the vertical direction in the luminous section of the screen will be 11.74 and the BLK quantity at
  the top and bottom will be the same.

Note: Make adjustment before 16:9 V-SIZE adjustment.

- 8. Input a 625 monoscope signal.
- 9. In the same way as 5. shown above, adjust V-BLANKING <50>.
- 10. Adjust [16:9 BLANKING START < 50> and [16:9 BLANKING END < 50>], in the same was as 6. and 7., so that the number of frames in the vertical direction in the luminous section of the screen will be 11.2 and the BLK quantity at the top and bottom will be the same.

### 5. Vertical deflection adjustment

- 1. Input a 525 monoscope signal.
- 2. CONT ... 80% BRT ... 50%
- 3. Set the unit in the service mode.
- 4. Roughly adjust NOR 60 V.SIZE so that the size will be 12 frames. Adjust V.LIN with V.LIN.

Adjust CENT with V.CENT.

V.CENT must be reviewed after adjustment of V.LIN.

Adjust NOR 60 V.SIZE so that it will equal the standard value.

- 5. Set the unit in the 16:9 mode by the user controller SW.
- 6. Make the same adjustment with 16:9 NOR V.SIZE <60>.
- 7. Set the unit in the NORMAL SCAN mode.
- 8. Input a 625 signal.
- Adjust NOR 50 V.SIZE so that the SIZE will equal the standard value.
- 10. Set the unit in the 16:9 mode.
- 11. Adjust 16:9 NOR V.SIZE <50> so that it will equal the standard value.

Table 5-3 NORMAL V. SIZE standard

		525	625	
4:3		11.75±0.2 frames	5±0.2 frames 11.2±0.2 frames	
10.0	14"	154mm	◄	
16:9	20"	217mm	4	

### Horizontal deflection adjustment (Normal scan adjustment)

- 1. Input a 525 monoscope signal.
- 2. CONT ... 80% BRT .... 50%
- 3. Set the unit in the service mode.
- 4. Rough adjustment of H.SIZE

Roughly adjust NOR H.SIZE so that H.SIZE will be 15.75 frames.

5. Adjust the horizontal deflection by means of NOR PIN AMP, NOR PIN PHASE, NOR U.PIN AMP, SEXY, VBOW, VANGL, NOR H SIZE, L.PIN AMP, and L.V.BOW.

(While correcting a distorted parallelogram and curvature with V.ANGL and BOW, make adjustment so that the horizontal and vertical lines of the screen will be straight.)

- 6. Set the unit in the 16:9 mode.
- 7. Make the same adjustment as 5. with 16:0 NOR PIN AMP and 16:9 NOR PIN PHASE

Table 5-4 NORMAL H. SIZE standard

	525	625	
4:3	11.75±0.2 frames	15.0±0.2 frames	
16:9	11.75±0.2 frames	15.0±0.2 frames	

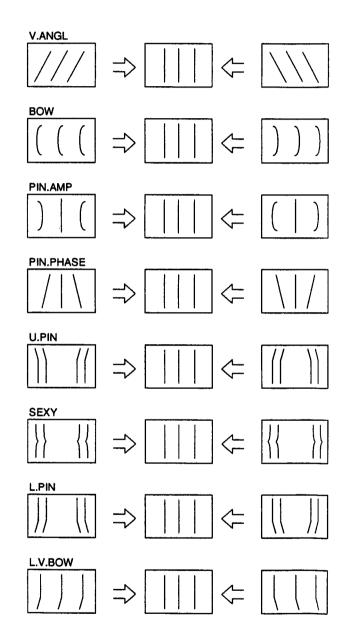


Fig.5-5

### Horizontal deflection adjustment (UNDER SCAN adjustment)

- 1. Input a 525 monoscope signal.
- 2. CONT ... 80% BRT .... 50%
- 3. Set the unit in the U/S mode.
- 4. Set the unit in the service mode.
- 5. Adjust <u>U/S V SIZE <60></u> so that UNDER V.SIZE will be within the standard.
- Adjust <u>U/S H SIZE</u> so that UNDER H.SIZE will be within the standard.
- 7. Adjust <u>U/S PIN AMP</u> and <u>U/S PIN-PHASE</u>. (Adjust tracking according to 5., 6., and 7.)
- After adjustment, the white frame of the monoscope shall not be out of the effective screen.
- 9. Set the unit in the 16:9 mode.
- 10. Make the same adjustment with 5. and 7. by means of 16:9 U/S V SIZE <60>, 16:9 U/S PIN-AMP and 16:9 U/S PIN-PHASE.

Table 5-5
Standerd values for groups of models 1, 2, and 3 (14")

	525	625
U/S H-SIZE V-SIZE	252mm 188mm	-
16 : 9 U/S V-SIZE	142mm	<b>4</b>

Table 5-6
Standerd values for groups of models 4 and 5 (20")

	525	625
U/S H-SIZE V-SIZE	364mm 272mm	<b>—</b>
16 : 9 U/S V-SIZE	205mm	<b>4</b>

- 11. Set the unit in the 16:9 mode.
- 12. Input a monoscope signal.
- 13. Make the same adjustment with 5. by means of U/S V SIZE < 50>.
- 14. Set the unit in the 16:9 mode.
- 15. Make the same adjustment with 5. by means of 16:9 U/SV SIZE <50>.

Note: If there is not time enough for adjustment (5. Vertical deflection adjustment and 6. and 7. Horizontal deflection adjustment), confirm that the respective sections will operate normally and that adjustment is possible, and then input standard adjustment values.

### 8. H/V-DELAY adjustment

Note: This item applies only to groups of models 1, 2, 4, and 5.

- 8-1. H-DELAY adjustment
- 1) Input a 525 monoscope signal.
- 2) CONT ... 80% BRT .... 50%
- 3) Set the unit in the H/V DELAY mode.
- 4) Set the unit in the service mode.
- 5) Connect the probe of an oscilloscope to IC503 ⑦ PIN. Adjust HDELAY so that the output waveform will be as shown in Fig.5-

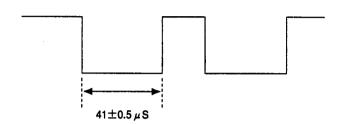


Fig.5-6

- 8-2. V-DELAY adjustment
- 1) Input a 525 monoscope signal.
- 2) CONT ... 80% BRT .... 50%
- 3) Set the unit in the H/V DELAY mode.
- 4) Set the unit in the service mode.
- 5) Connect the probe of an oscilloscope to IC502 ⑦ PIN. Adjust V DELAY so that the output waveform will be as shown in Fig.5-7

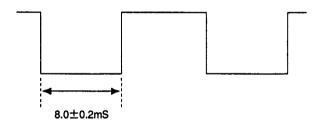


Fig.5-7

### 8-3. Confirmation of screen Confirm that the screen is as shown in Fig.5-8.

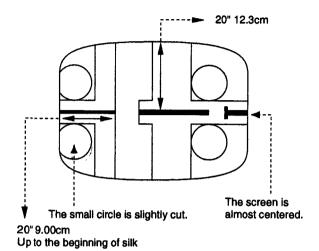


Fig.5-8

### 9. Writing adjustment results

Write the adjustment results.

Note: Do not turn off the power before writing the adjustment results; otherwise, they will all be lost.

### 3. Signal system adjustment

### 1. SUB CON adjustment during NORM and H/V DL

Note: H/V-DL is not applicable to the group of models 3.

Adjustment must be completed before the HUE adjustment of NTSC358/443.PAL.

1. Input a vertical white line signal.

Note: Use a vertical white line signal (without 525 burst; H width of 3μS; 100IRE).

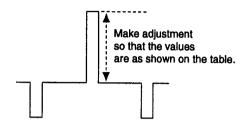
- 2. CONT ... 80% BRT .... 50%
- Connect the probe of an oscilloscope to CN401 ③ PIN on the A board.
- 4. Set the unit in the service mode.
- Temporarily input "69" as an adjustment value for SUB.BRIGHT. Set the values in Table 5-7 as BIAS and GAIN data of C.TEMP1 and C.TEMP2.

Table 5-7

Group of models	1, 4	2, 3, 5
BIAS GREEN	512	400
GAIN GREEN	700	700

6. Adjust the pedestal or the distance between SYNCTIP and WHITE by means of SUB CON <4:3, NOR>.

SUB CON <4:3, H/V DELAY, SUB CON <16:9, NOR>, and SUB CON <16:9, NOR>.
SUB CON <4:3. NOR>
SUB CON <16:9. NOR> (Fig.5-9)

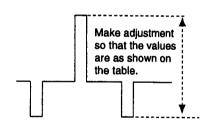


SUB-CON 4:3. H/V-DL SUB-CON 16:9. H/V-DL

Group of models	4	1	5	2	3
4:3	1.39Vp-p	1.16Vp-p	1.37Vp-p	1.47Vp-p	1.47Vp-p
16:9	1.22Vp-p	1.04Vp-p	1.19Vp-p	1.32Vp-p	1.32Vp-p

Fig. 5-9

SUB CON <4:3. H/V DELAY>
SUB CON <16:9. H/V DELAY> (Fig.5-10)



SUB-CON 4:3. H/V-DL SUB-CON 16:9. H/V-DL

Group of models	4	1	5	2
4:3	1.39Vp-p	1.16Vp-p	1.37Vp-p	1.47Vp-p
16:9	1.22Vp-p	1.04Vp-p	1.19Vp-p	1.32Vp-p

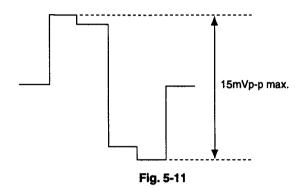
Fig. 5-10

Note: Not applicable to PVM-14M1J

### 2. SUB PHASE adjustment

Note: Not applicable to the group of models 3.

- Input a component color bar (R-Y) and EXT SYNC. (BETA 0 level signal)
- 2. Set the unit in the EXT SYNC mode for component input.
- 3. Connect the probe of an oscilloscope to IC404 @ PIN or TP402.
- 4. Set the unit in the service mode.
- 5. Adjust SUB PHASE so that the output waveform will be minimum (15 mVp-p or less). (Fig.5-11)



### 3. SUB PHASE adjustment

Note: Not applicable to groups of models 1, 2, 4, and 5.

- 1. Input an NTSC color bar.
- Connect L309 to GND and TP307 to 5V line (L320 line), respectively.
- 3. Set the unit in the service mode.
- Adjust SUB PHASE so that the output waveform will be minimum (15 mVp-p or less). (Fig.5-11)

### 4. SUB CHROMA adjustment

Note: Not applicable to the group of models 3.

- Input component color bars (R-Y, Y, and B-Y). (BETA 0 level signal)
- 2. Set COMPONENT LEVEL to BETA 0 via MENU.
- 3. Connect the probe of an oscilloscope to IC404 @ PIN or TP402.
- 4. Set the unit in the service mode.
- Adjust <u>SUB CHROMA NORMAL</u> so that the peaks of waveforms will be flush with each other as shown in Fig.5-12.

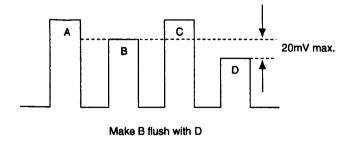


Fig. 5-12

### 5. SUB COL adjustment

Note: Not applicable to groups of models 1, 2, 4, and 5.

- 1. Set the unit in the service mode.
- 2. Input adjustment value 98 to SUB CHROMA NORMAL. (Fig.5-12)

### 6. R-Y LEVEL adjustment

Note: Not applicable to the group of models 3.

- 1. Input component color bars (R-Y, Y, and B-Y). (BETA 0 level signal)
- 2. Set COMPONENT LEVEL to BETA 0 via MENU.
- 3. Connect the probe of an oscilloscope to IC404 @ PIN or TP401.
- 4. Set the unit in the service mode.
- 5. Adjust R-Y LEVEL COMPONENT so that the peaks of waveforms will be flush with each other as shown in Fig.5-13.

Make adjustment so that B = D as shown above. (20 mV max.) Check that the difference between B and C is 30 mV or less.

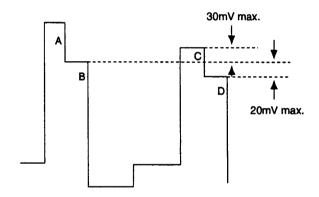


Fig. 5-13

### 7. SUB CHROMA N10/SMPTE

Note: Not applicable to the group of models 3.

- Input component color bars (R-Y, Y, and B-Y). (SMPTE level signal)
- 2. Set COMPONENT LEVEL to N10/SMPTE via MENU.
- 3. Connect the probe of an oscilloscope to IC404 @ PIN or TP402.
- 4. Set the unit in the service mode.
- 5. Adjust SUB CHROMA SMPTE so that the levels of B and D will be the same. (Fig.5-14)

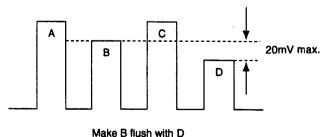


Fig. 5-14

### 8. Adjustment of burst gate pulse width

- 1. Input an NTSC color bar.
- Connect the probe of an oscilloscope to TP301 (COMP-SYNC) and Q363 (E) or IC305 (1) PIN. (Exercise care since IC305 (1) PIN is a high-impedance line.)
- 3. Set the unit in the service mode.
- Adjust BGF WIDTH so that the output waveforms will be as shown in Fig.5-15.

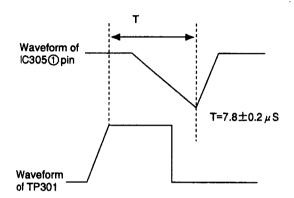
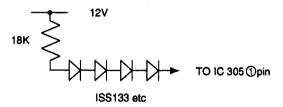


Fig. 5-15

### 9. VXO adjustment

- 9-1. X'tal 358
- 1) Input an NTSC color bar.
- 2) Connect a frequency counter to IC305 ② PIN.
- 3) Set the unit in the service mode.
- 4) Connect IC305 ① PIN as shown in Fig.5-16.
- Adjust NTSC CRYSTAL so that the counter reading will be within the standard values shown below. (Adjustment may be made at a point at which the color flickering stops.)

X'tal 358 standard vlaue: 3579545±20 Hz



(Arrange 4 Di's as close as possible to ①PIN at the shortest possible distance.)

Fig. 5-16

### 9-2. X'tal 443

- 1) Input a 443 NTSC color bar.
- 2) Connect a frequency counter to IC305 ② PIN.
- 3) Set the unit in the service mode.
- Connect IC305 ① PIN in the same way as 9.-4) in 9. VXO adjustment.
- 5) Adjust NTSC 443 CRYSTAL in the same way as 9.-5) in 9. VXO adjustment.

X'tal 443 standard value: 4433619±20 Hz

### 10. NTSC · NTSC443 · PAL color demodulation adjustment

Note: 10-1, is not applicable to the group of models 3.

### 10-1. NT358PHASE (NORMAL)

- 1) Input an NTSC color bar.
- 2) Connect the probe of an oscilloscope to TP306.
- 3) Set the unit in the H/V DELAY mode.
- 4) Set the unit in the service mode.
- Adjust PHASE NTSC 358 NOR so that the burst section of the output waveform will be straight. (Fig. 5-17)

### 10-2. NT 358 PHASE (ACC OFF)

- 1) Conduct ACC OFF via MENU.
- Make adjustment in the same way as 10-1, shown above by means of [PHASE NTSC 443 ACC OFF]. (Fig. 5-17)

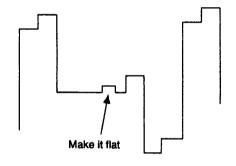


Fig. 5-17

### 10-3. NT 358 B-Y PHASE

Note: Make adjustment after PHASE adjustment and before CHROMA adjustment.

- Input an NTSC color bar. (Input only the R-Y component. B-Y and Y should be OFF.)
- 2) Connect the probe of an oscilloscope to TP305.
- 3) Set the unit in the service mode.
- Adjust <u>B-Y PHASE NTSC 358</u> so that the color components will be straight.

### 10-4. NT 358 CHROMA (NORMAL)

- 1) Input an NTSC color bar.
- 2) Connect the probe of an oscilloscope to IC404 **②** PIN or TP402.
- 3) Set the unit in the service mode.
- 4) Adjust CHROMA NTSC 358 NOR so that the peaks of waveforms will be flush with each other as shown in Fig.5-18.

### 10-5. NT 358 CHROMA (ACC OFF)

Note: 10-5. is not applicable to the group of models 3.

- 1) Conduct ACC OFF via MENU.
- Adjust CHROMA NTSC 358 ACC OFF in the same way as 10-4. shown above. (Fig.5-18)

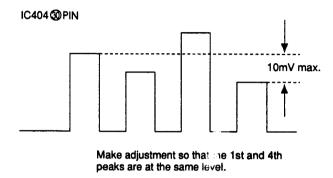
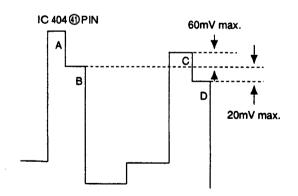


Fig. 5-18

### 10-6. NTSC 358 R-Y LEVEL

Note: Be sure to set ACC in the ON position before this adjustment.

- 1) Input an NTSC 358 color bar.
- 2) Connect the probe of an oscilloscope to IC 404 @PIN or TP401.
- 3) Set the unit in the service mode.
- 4) Adjust R-Y LEVEL NTSC 358 so that the peaks of waveforms will be flush with each other as shown in Fig. 5-19.



Make adjustment so that B=D as shown above.(20mV max.) Check that the difference between B and C is less than 60mV.

Fig. 5-19

### 10-7. NTSC 443 PHASE (NORMAL)

Note: 10-7-3). is not applicable to the group of models 3.

- 1) Input an NTSC 433 color bar.
- 2) Connect the probe of an oscilloscope to TP306.
- 3) Set the unit in the H/V DELAY mode.
- 4) Set the unit in the service mode.
- Adjust PHASE NTSC 443 NOR so that the burst section of the output waveform will be straight. (Fig. 5-20)

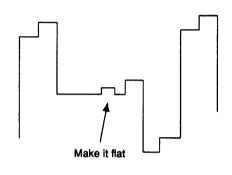


Fig. 5-20

### 10-8. NTSC 443 PHASE (ACC OFF)

Note: 10-8. is not applicable to group of models 3.

- 1) Conduct ACC OFF via MENU.
- 2) Adjust PHASE NTSC 443 ACC OFF in the same way as 10-7-5). (Fig.5-21)

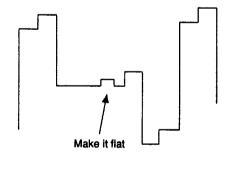


Fig. 5-21

### 10-9. NTSC 443 B-Y PHASE NTSC 443 CHROMA NOR

Note: Be sure to set ACC in the ON position before this adjust-

ment

Note: Remove HV.DELAY before this adjustment.

- 1) Input an NTSC 443 color bar.
- 2) Connect the probe of an oscilloscope to TP402.
- 3) Set the unit in the service mode.
- 4) While tracking by means of <u>B-Y PHASE NTSC 443</u> and <u>CHROMA NTSC 443 NOR</u>, make adjustment so that the peaks of waveforms will be the same. (Fig.5-22)

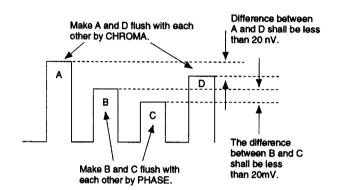


Fig. 5-22

### 10-10. NTSC 443 CHROMA (ACC OFF)

Note: 10-10. is not applicable to the group of models 3.

- 1) Conduct ACC OFF via MENU.
- 2) Adjust [CHROMA NTSC 443 ACC OFF] in the same way as 10-9-4). (Fig.5-23)

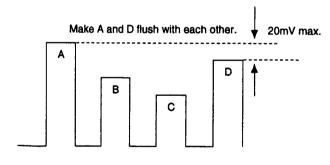


Fig. 5-23

### 10-11. NT 443 R-Y LEVEL

Note: Be sure to set ACC in the ON position before this adjustment.

- 1) Input an NTSC 443 color bar.
- 2) Connect the probe of an oscilloscope to TP401.
- 3) Set the unit in the service mode.
- 4) Adjust R-Y LEVEL NTSC 443 in the same way as 10-6-4). (Fig.5-24)

Make adjustment so that B = D. (20 mV max.) Check that the difference between B and C is 60 mV or less.

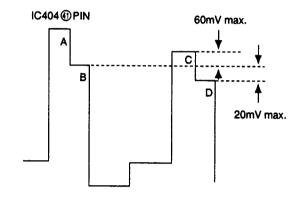
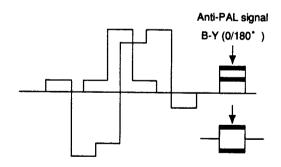


Fig. 5-24

### 10-12. PAL PHASE (NORMAL)

- 1) Input a PAL SP color bar.
- 2) Connect the probe of an oscilloscope to TP306.
- 3) Set the unit in the service mode.
- Adjust PHASE PAL NOR so that the waveform of the B-Y anti-PAL signal will be "0."



\*The signal waveform differs slightly every hour. Adjust it to "0."

Fig. 5-25 R-Y OUT

### 10-13. PAL PHASE (ACC OFF)

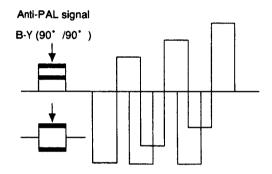
Note: 10-13. is not applicable to the group of models 3.

- 1) Conduct ACC OFF via MENU.
- 2) Adjust PHASE PAL ACC OFF in the same way as 10-12-4).

### 10-14. PAL B-Y PHASE

Note: Be sure to set ACC in the ON position before this adjustment.

- 1) Input a PAL SP color bar.
- 2) Connect the probe of an oscilloscope to TP305.
- 3) Set the unit in the service mode.
- Adjust <u>B-Y PHASE PAL</u> so that the waveform of the R-Y anti-PAL signal will be "0." (Fig.5-26)



\*The signal waveform differs slightly every hour. Adjust it to "0."

Fig. 5-26 B-Y OUT

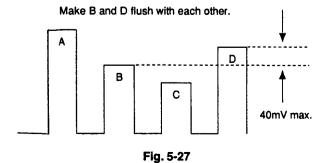
### 10-15. PAL CHROMA (NORMAL)

- 1) Input a PAL color bar.
- 2) Connect the probe of an oscilloscope to IC404 @ PIN or TP402.
- 3) Set the unit in the service mode.
- 4) Adjust CHROMA PAL NOR so that the peaks of waveforms will be flush with each other. (Fig.5-27)

### 10-16. PAL CHROMA (ACC OFF)

Note: 10-16. is not applicable to the group of model 3.

- 1) Conduct ACC OFF via MENU.
- 2) Adjust CHROMA PAL ACC OFF in the same way as 10-15-4). (Fig. 5-27)



### 10-17. PAL R-Y LEVEL

Note: Be sure to set ACC in the ON position before this adjustment.

- 1) Input a PAL color bar.
- 2) Connect the probe of an oscilloscope to IC404 ① PIN or TP401.
- Set the unit in the service mode.
- 4) Adjust R-Y LEVEL PAL so that the peaks of waveforms will be flush with each other as shown on the right. (Fig. 5-28)

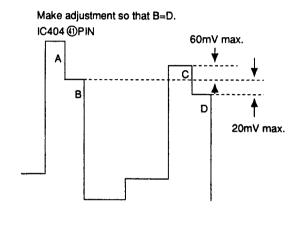


Fig. 5-28

### 11. SECAM adjustment

Note: Make adjustment after deflection adjustment.

Note: Subject to H-FREQ, H-BLK, VIDEO-PHASE, ANGLE, BOW, H-DELAY, etc.

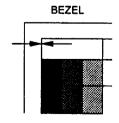
Note: 11. SECAM adjustment is not applicable to the group of models 3.

### 11-1. HP WIDTH (NORMAL) adjustment

1) Input a SECAM color bar.

Note: The board is roughly adjusted in 11-1., and IC317 1 PIN pulse width may be used for control.

- 2) Set the unit in the UNDER SCAN mode.
- 3) Set the unit in the service mode.
- Adjust <u>HP WIDTH NOR</u> so that the color section at the left edge of the upper portion of the screen is about to disappear. (Fig. 5-29)



Make adjustment so that colors are about to disappear.

Fig. 5-29

#### 11-2. Writing HP.WIDTH (NORMAL) data

Note: Not applicable to groups of models 1, 2, 4, and 5.

- 1) Set the unit in the service mode.
- 2) Input 102 to HP.WIDTH (NOR).

#### 11-3. HP POSITION adjustment

Note: 11-3. is not applicable to the group of models 3.

- 1) Input a SECAM color bar.
- 2) Set the HV-DL mode.
- 3) Set the unit in the service mode.
- 4) Adjust **HP POSITION** as shown in Fig.5-30.

Note: The same as 11-3. The phase relationship between the beginning of IC317 ® PIN pulse and the input VIDEO signal may be used for control.

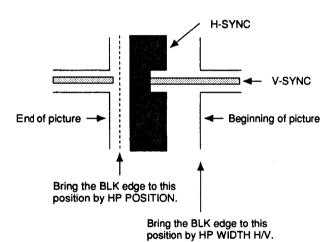


Fig. 5-30

#### 11-4. HP WIDTH (H/V-DL) adjustment

Note: 11-4. is not applicable to the group of models 3.

- 1) Input a SECAM color bar.
- 2) Set the unit in the HV-DELAY mode.
- 3) Set the unit in the service mode.
- 4) Adjust HP WIDTH HV-DELAY as shown in Fig.5-30. (Note: Check HP POSITION. If it is not in position, repeat 2) and 3).)

#### 11-5. SECAM COL BALANCE

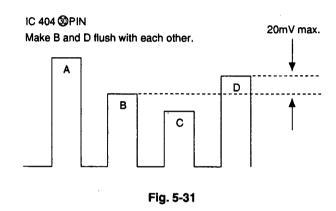
Note: 11-5. is not applicable to the group of models 3.

- 1) Input a SECAM color bar.
- 2) Connect the probe of an oscilloscope to TP306.
- 3) Set the unit in the service mode.
- Adjust <u>SECAM COLOR BALANCE R-Y</u> so that the level in the achromatic color will be straight.

- 5) Connect the probe of an oscilloscope to TP305.
- Adjust <u>SECAM COLOR BALANCE B-Y</u> so that the level in the achromatic color will be straight.

#### 11-6. SECAM CHROMA

- 1) Input a SECAM color bar.
- 2) Connect the probe of an oscilloscope to IC404 39 PIN or TP402.
- 3) Set the unit in the service mode.
- 4) Adjust [CHROMA SECAM] so that the peaks of waveforms will be flush with each other as shown in Fig.5-31.



#### 11-7. SECAM R-Y LEVEL

- 1) Input a SECAM color bar.
- 2) Connect the probe of an oscilloscope to IC404 @ PIN or TP401.
- 3) Set the unit in the service mode.
- 4) Adjust R-Y LEVEL SECAM so that the peaks of waveforms will be flush with each other as shown in Fig.5-32.

#### IC404 (PIN Make adjustment so that B=D.

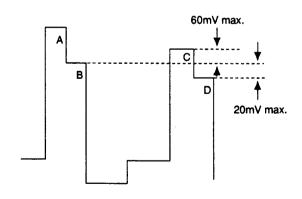


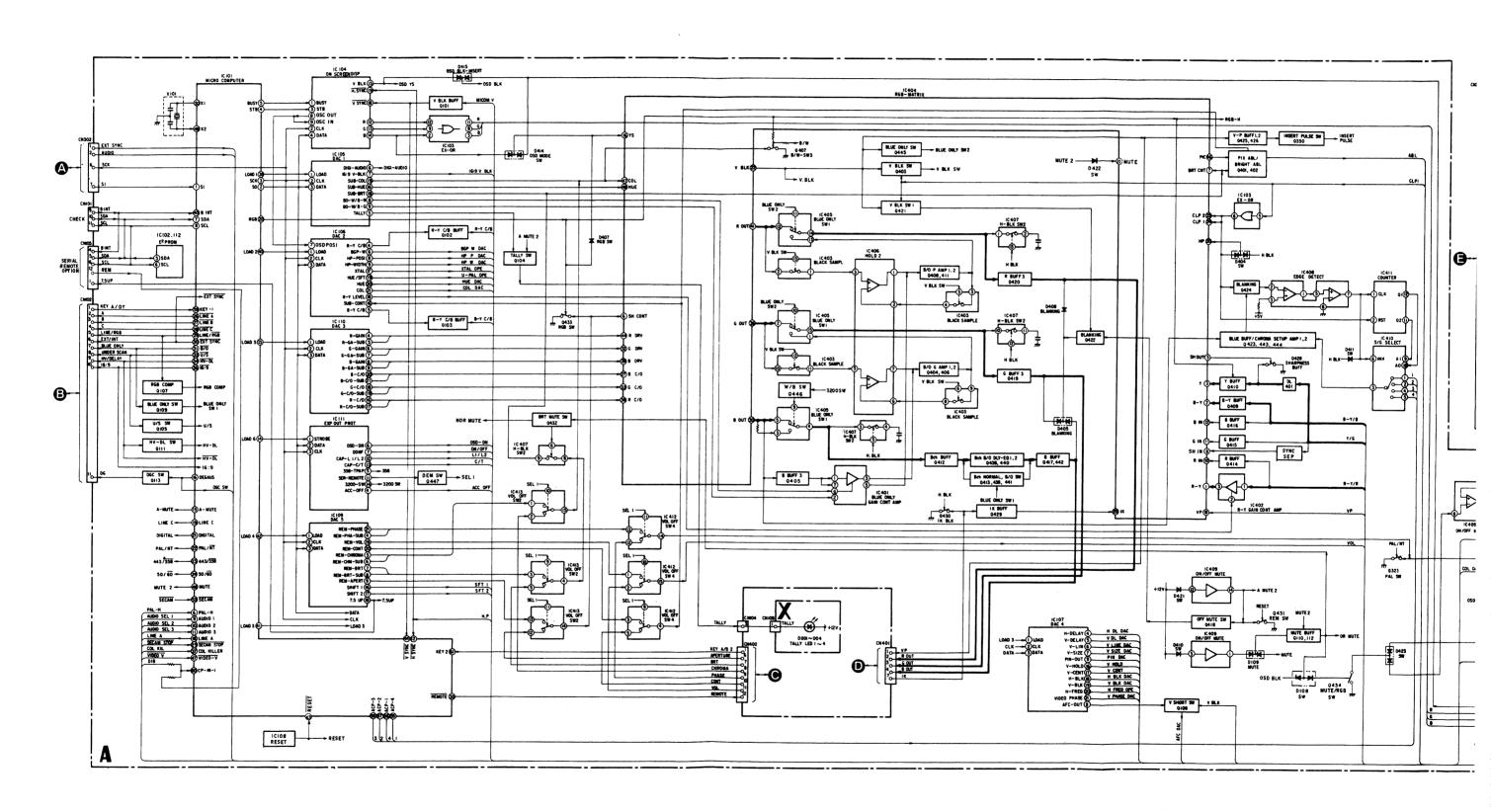
Fig. 5-32

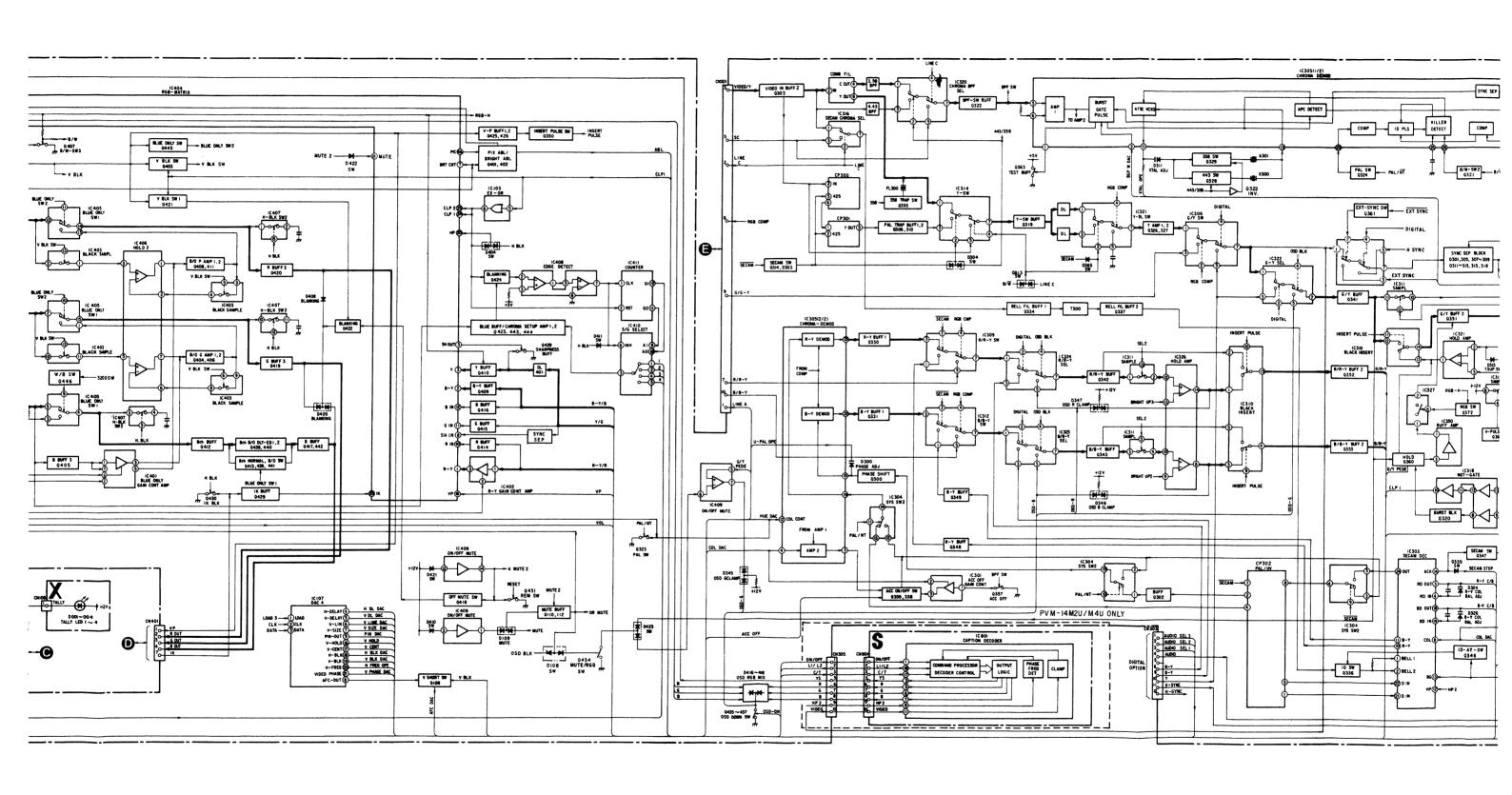
#### 12. Writing adjustment results

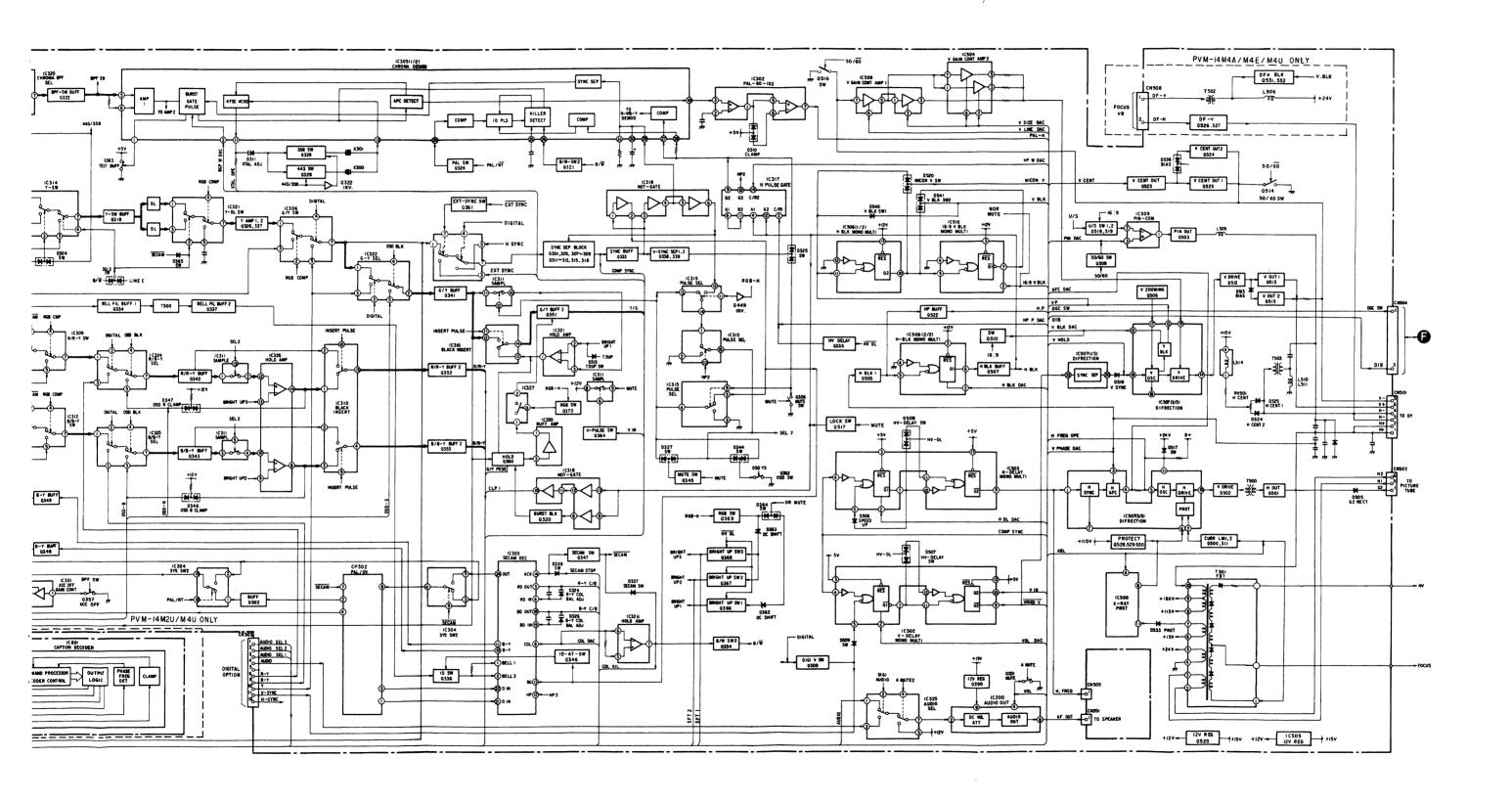
Write adjustment results in the memory.

# SECTION 6 DIAGRAMS

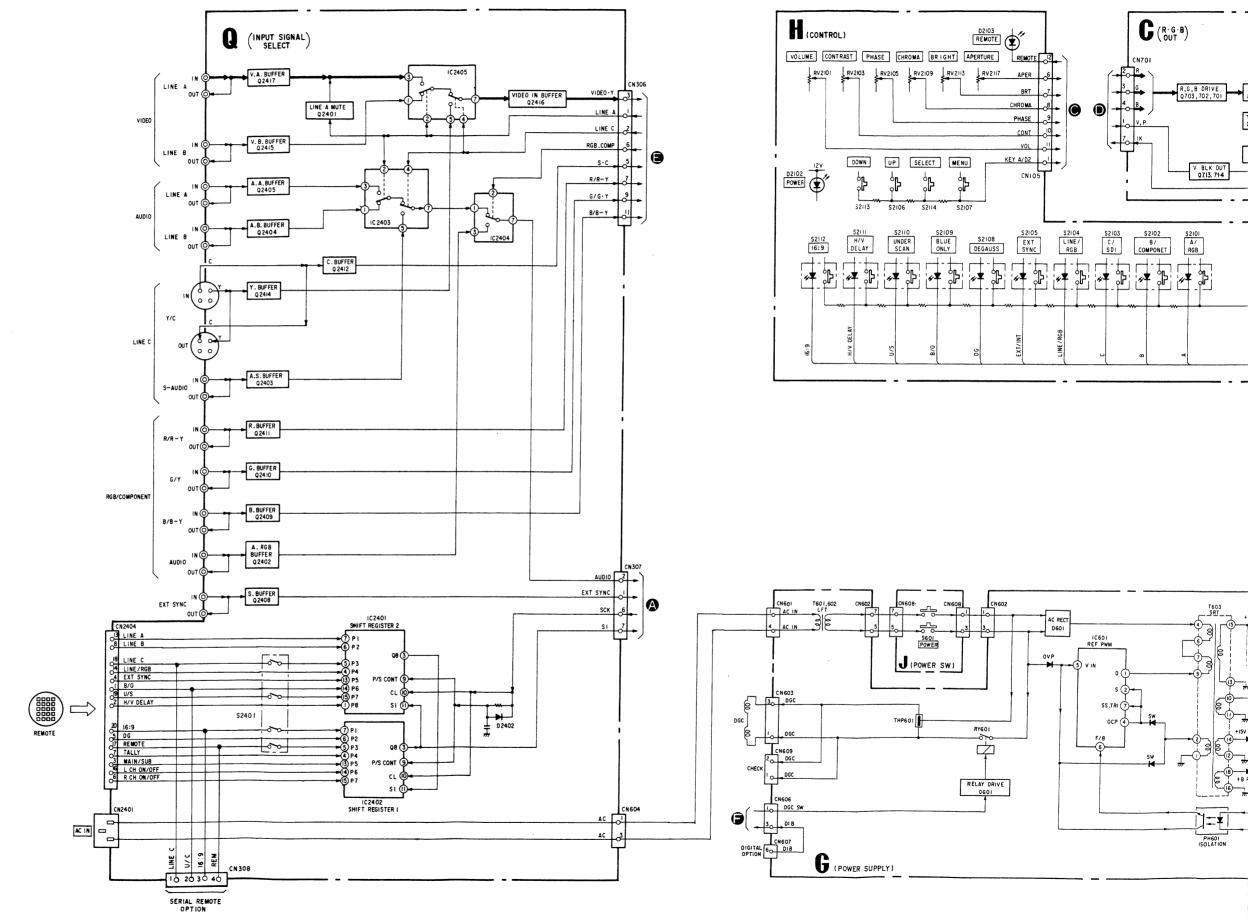
## 6-1. BLOCK DIAGRAMS (1)

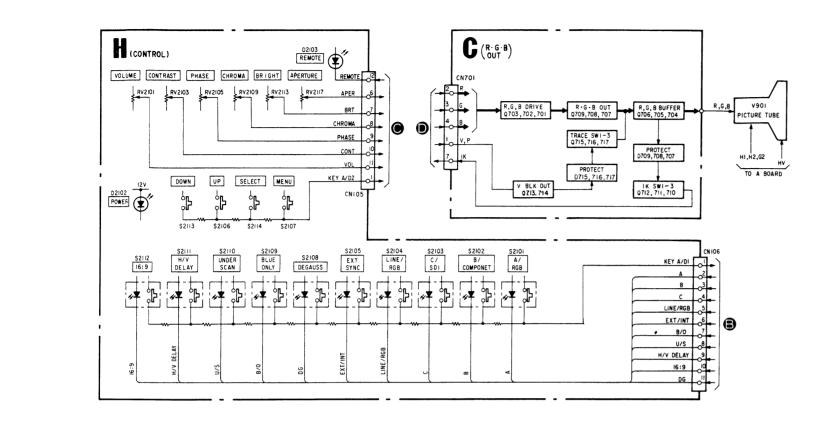


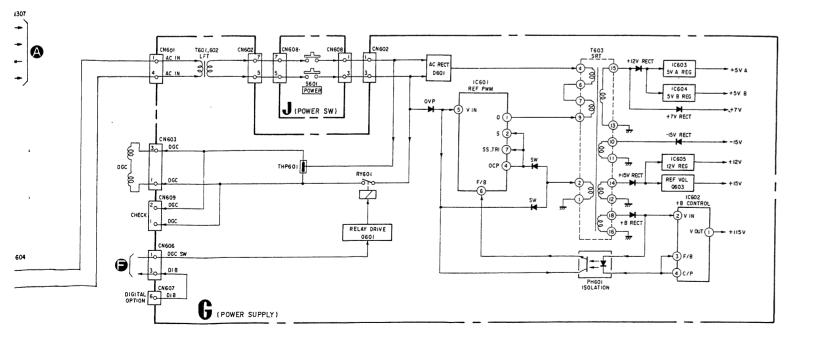




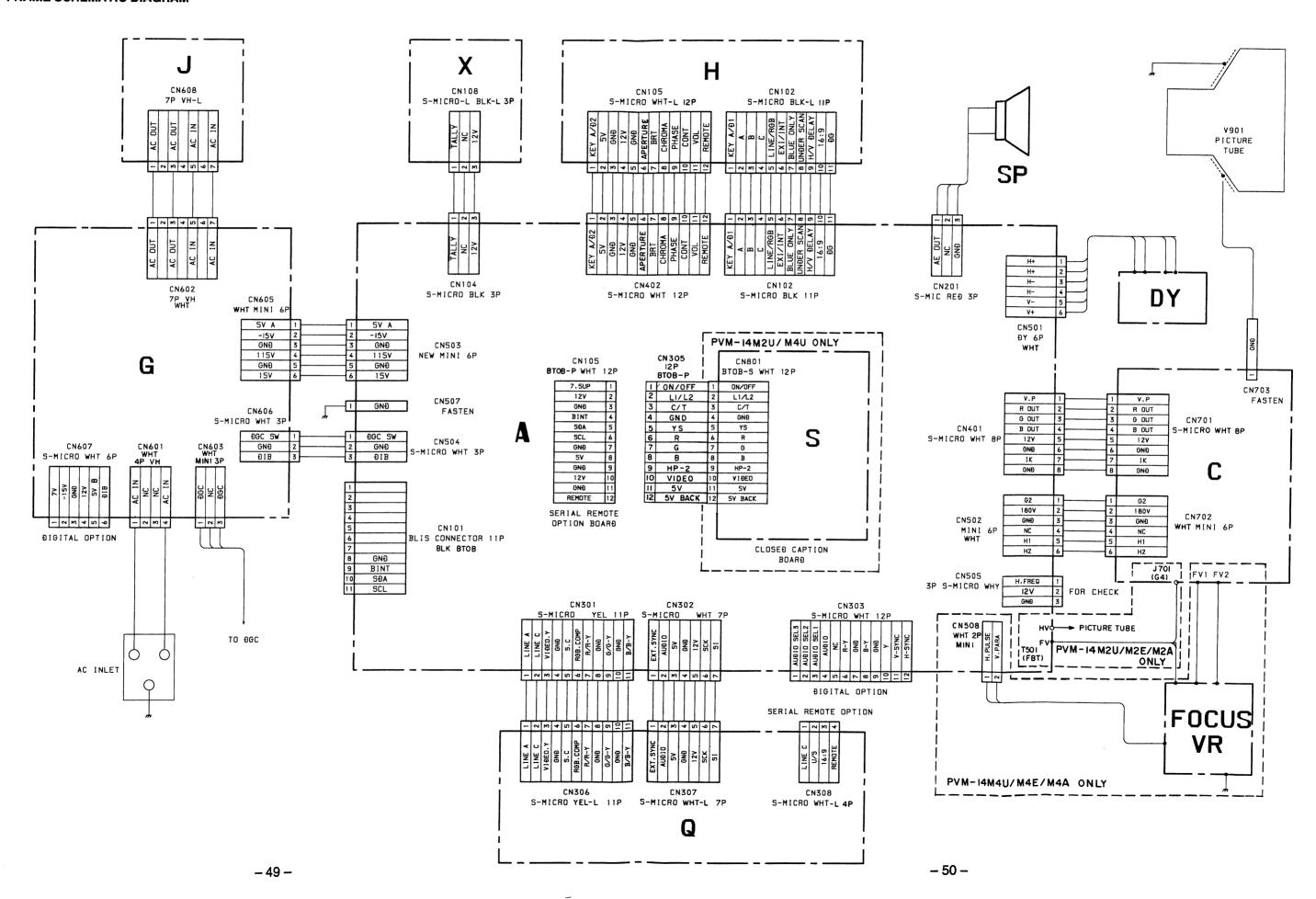
## **BLOCK DIAGRAMS (2)**

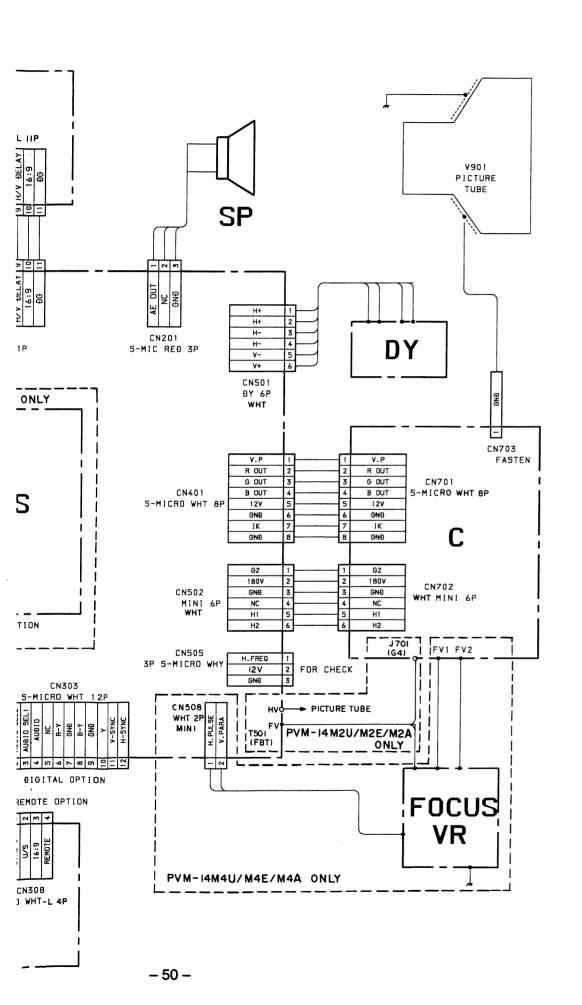


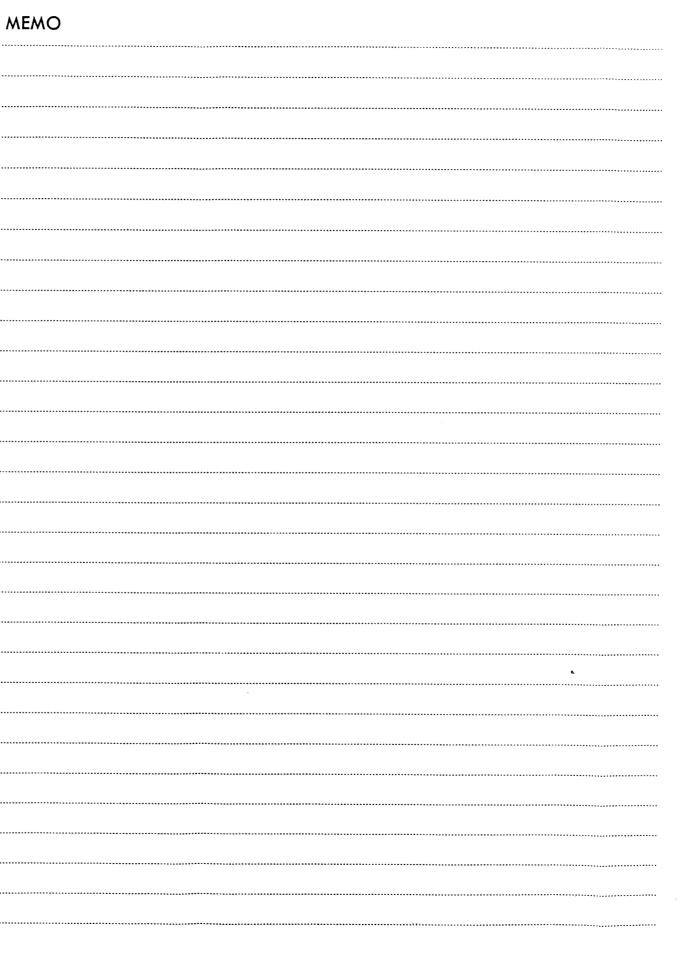




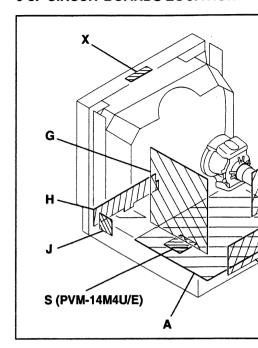
#### 6-2. FRAME SCHEMATIC DIAGRAM







#### 6-3. CIRCUIT BOARDS LOCATION



## 6-4. PRINTED WIRING BOARDS AND S

#### Note:

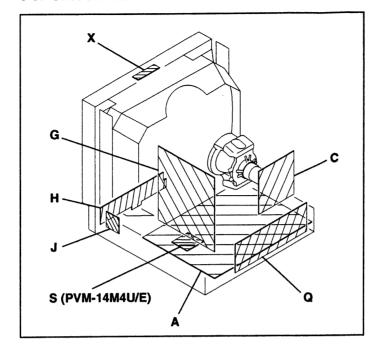
- All capacitors are in µF unless otherwise noted.
   50 WV or less are not indicated except for electrolytics
- Indication of resistance, which does not have one f electrical power, is as follows.

Pitch: 5 mm Rating electrical power ¼ W

- All resistors are in ohms.
- : nonflammable resistor.
- fusible resistor.
- △ : internal component.
- panel designation, and adjustment for repair.
- All variable and adjustable resistors have characterist
   B. unless otherwise noted.
- The components identified by in this basic so diagram have been carefully factory-selected for eac order to satisfy regulations regarding X-ray radiation.
   Should replacement be required, replace only with the originally used.
- When replacing components identified by n. mannecessary adjustments indicated. If results do not man specified value, change the component identified by repeat the adjustment until the specified value is accepted to R1536 adjust on Page 25 and 26.)
- When replacing the part in below table, be sure to performed adjustment.

Part replaced (☑)	A
C512, C513, C523, C549, C592, D501, D533, IC500, IC507, Q500, Q511, R506, R508, R515, R516, R517, R518, R519, R551, R1537, R1560	()

#### 6-3. CIRCUIT BOARDS LOCATION



## 6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

#### Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4 W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component. Δ
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by  $\blacksquare$  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ... make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by A and repeat the adjustment until the specified value is achieved. (Refer to R1536 adjust on Page 25 and 26.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (2)

C512, C513, C523, C549, C592, D501, D533, IC500, IC507, Q500, Q511, R506,

R508, R515, R516, R517, R518, R519,

R551, R1537, R1560----- (A BOARD)

•	All voltages are in V.
•	Voltage are dc with re
	Dondings are tales

- respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- - B bus.
- : signal path.
- No mark: with PAL colour-bar signal sreceived or common voltage.
- For the respective voltage ratings in SECAM, NTSC 3.58, NTSC 4.43 S-VIDEO, and ANALOG RGB modes, see the table

#### Reference information

schematic	RESISTOR	: RN	METAL FILM
each set in		: RC	SOLID
		: FPRD	NONFLAMMABLE CARBON
the value		: FUSE	NONFLAMMABLE FUSIBLE
		: RW	NONFLAMMABLE WIREWOUN
make the		: RS	NONFLAMMABLE METAL OXI
t meet the		: RB	NONFLAMMABLE CEMENT
by 🔀 and	COIL	: LF-8L	MICRO INDUCTOR
achiéved.	CAPACITOR	: TA	TANTALUM
		: PS	STYROL
perform the		: PP	POLYPROPYLENE
		: PT	MYLAR
A division and /	23/	: MPS	METALIZED POLYESTER
Adjustment (	<u> </u>	: MPP	METALIZED POLYPROPYLENE
		: ALB	BIPOLAR
R1536		: ALT	HIGH TEMPERATURE
(HOLD-DOW	N)	: ALR	HIGH RIPPLE

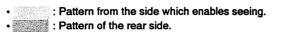
Note: The components identified by shading and mark A are critical for safety. Replace only with part number specified.

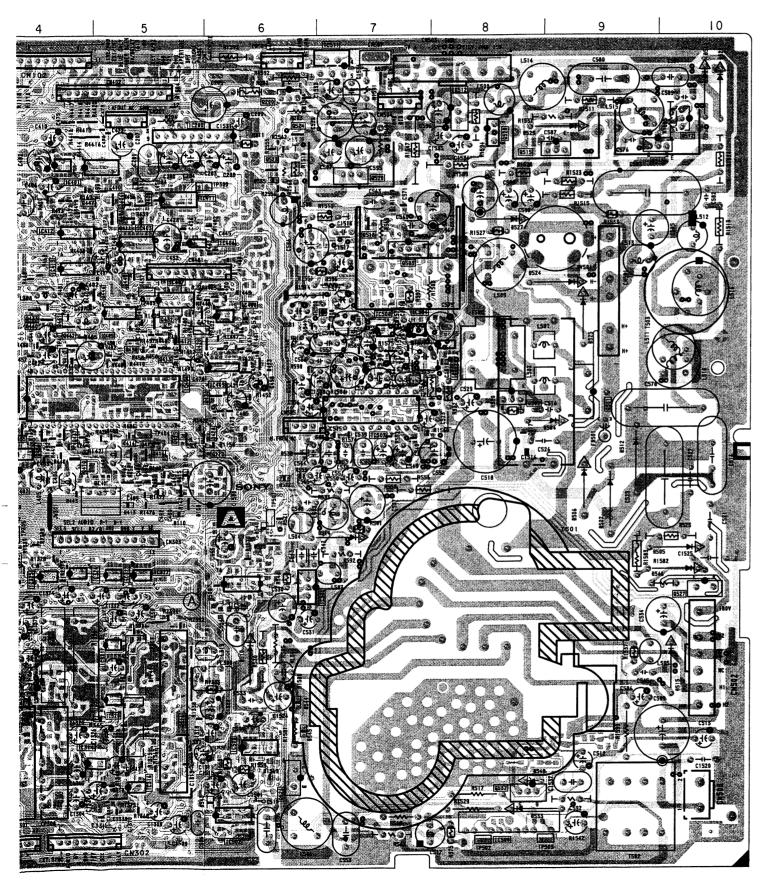
Note: Les composants identifiés par une trame et par une marque / sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.



	Q103 Q104 Q105	TRANS	IC102 IC103 IC104 IC105 IC106 IC107 IC109 IC110 IC111 IC112 IC200 IC301 IC302 IC303 IC304 IC305 IC310 IC311 IC312 IC313 IC314 IC315 IC316 IC317 IC318 IC320 IC321 IC321 IC322 IC323 IC324 IC325 IC326 IC327 IC326 IC327 IC320 IC321 IC321 IC322 IC323 IC324 IC325 IC326 IC327 IC326 IC327 IC326 IC327 IC327 IC328 IC326 IC327 IC328 IC327 IC328 IC329 IC321 IC321 IC321 IC321 IC321 IC321 IC322 IC323 IC326 IC327 IC326 IC327 IC326 IC327 IC326 IC327 IC327 IC350 IC401 IC402 IC403 IC403 IC404 IC405 IC406 IC407 IC408 IC409 IC410 IC312 IC313 IC316 IC317 IC318 IC327 IC326 IC327 IC326 IC327 IC326 IC327 IC326 IC327 IC327 IC328 IC327 IC328 IC327 IC328 IC327 IC300 IC401 IC402 IC403 IC403 IC405 IC406 IC407 IC408 IC409 IC410 IC500 IC501 IC501 IC501 IC501 IC501 IC501 IC501 IC502 IC503 IC501 IC503 IC501 IC503 IC501 IC503 IC501 IC501 IC501 IC501 IC501 IC501 IC502 IC503 IC505 IC505 IC506 IC505 IC506 IC507 IC506 IC507 IC508 IC507 IC508 IC507 IC508 IC507 IC508 IC507 IC508 IC505 IC501	IC101	ı
A-3 A-3	C-2 B-2	C-2	% 1 % 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	B-2	С
Q525 Q526	Q523 Q524	Q513 Q515 Q518 Q520	Q200 Q308 Q311 Q314 Q316 Q320 Q324 Q335 Q341 Q342 Q343 Q353 Q354 Q355 Q356 Q355 Q356 Q357 Q356 Q366 Q372 Q366 Q372 Q372 Q373 Q411 Q411 Q412 Q413 Q414 Q415 Q416 Q425 Q436 Q437 Q436 Q437 Q416 Q425 Q436 Q437 Q436 Q437 Q436 Q437 Q446 Q447 Q448 Q441 Q445 Q446 Q447 Q448 Q449 Q449 Q449 Q449 Q449 Q449 Q449	Q110 Q112	Q108 Q109
A-6 G-6	B6 A6	A-9 A-8 B-7 B-7	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	A-1 D-6	C-2 A-3
RV501	VARIA RESIS	D544 D545 D546 D548	D100 D104 D105 D106 D108 D109 D110 D112 D114 D300 D301 D305 D308 D313 D314 D327 D332 D335 D336 D338 D339 D360 D361 D362 D365 D381 D414 D415 D416 D417 D418 D423 D414 D415 D416 D417 D418 D423 D424 D502 D504 D505 D506 D510 D512 D514 D515 D520 D521 D522 D524 D525 D527 D528 D527 D528 D529 D530 D533 D535 D537 D538 D540 D541 D543	Q532	Q527 Q528
B-9	BLE	F-6 G-6 E-10 G-8		G-8	E-10 A-8

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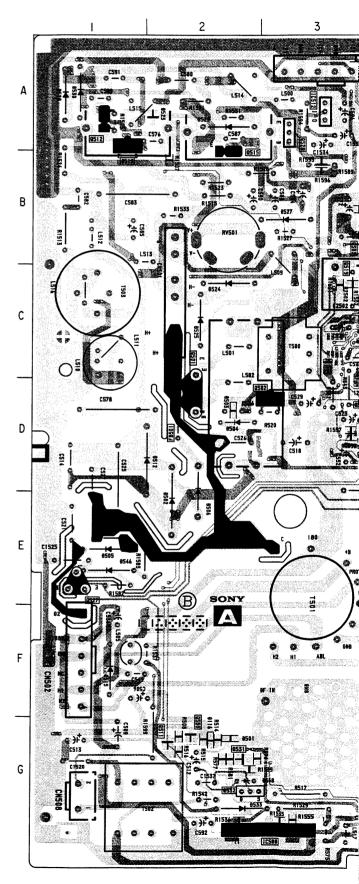




A BOARD (CONDUCTOR SIDE)

		0405	~ ~	Door	D 0
IC		Q405 Q407	C-6 C-7	D322 D323	D-9 C-9
IC101	A-9	Q409 Q417	D-7 C-5	D324 D325	E-9 D-8
IC108	B-8	Q418	B-5	D326	E-9
IC200 IC303	A-5 E-9	Q419	C-6	D333	C-9 E-8
IC404	D-6	Q420 Q421	C-6 B-5	D337 D344	D-8
C500	G-3	Q422	B-5	D345	E-7
C505 C507	E-4 D-4	Q423 Q424	C-5 C-5	D346 D347	E-7 E-7
IC511	A-4	Q424 Q428	D-6	D347	E-8
IC512	A-3	Q431 Q434	B-5 C-5	D364 D401	E-8 B-7
	ISTOR	Q439 Q444	C-6 B-5	D402 D404	B-7 D-6
0101 0111	A-9 C-10	Q448 Q500	F-9 G-2	D405 D407	B5 D7
1113	A-7	Q501	D-2	D410	C-5
2114	A-8	Q502	D-3	D411	B-6
Q200 Q201	A-5 A-5	Q503 Q505	B-3 E-5	D421 D422	C-5 C-5
2301	G-8	Q506	B-4	D425	C-5
2302	G-10 G-6	Q507	E-5 C-4	D427 D500	B-6 G-5
Q303 Q305	G-8	Q508 Q509	G-5	D500	G-2
2306	G-7	Q510	C-4	D502	E-2
2307 2309	G-8 G-8	Q511 Q512	G-2 A-1	D503 D504	D-2 D-2
Q310	G-7	Q512	A-1	D505	E-1
2312	G-8	Q514	B-4	D506	E-2
1313 1315	G-8 G-8	Q515 Q516	B-2 C-4	D507 D508	G-5 F-5
318	G-7	Q517	C-4	D509	G-5
2319 2321	F-7	Q519	C-3 B-4	D510	F-5 E-5
321 322	G-8 G-6	Q520 Q522	E-5	D511 D512	D-2
323	G-10	Q525	A-4	D513	E5
125	F-8 F-6	Q526	G-4 E-1	D514 D515	E-4 F-1
1326 1327	F-6	Q527 Q528	A-3	D515	F-5
2328	G-9	Q529	D-3	D517	E-4
2329 2330	G-9 F-9	Q530 Q531	D-4 G-2	D518 D519	E-5 C-4
2331	F-9	Q532	G-2	D523	A-2
2332 2333	G-10 D-9	Q2501	C-4	D524 D525	C-2 C-2
Q334 Q336	F-9 E-10	DIO	DE	D526 D527	B-4 B-3
2338 2339	C-8 D-8	D101 D102	B-10 B-9	D528 D529	A-1 A-2
2345	D-8 E-9	D103	B-9	D530	A-1
2349 2350	E-9 D-8	D107 D111	B-9 B-9	D531 D532	B-4   B-4
2351	D-8	D115	B-9	D533	G-2
Q352 Q355	D-8 F-5	D116	G-2	D534 D536	B-4 A-5
2361	F-8	D200 D301	A-4 G-8	D536 D542	B-4
2363	G-9	D303	F-7	D546	E-1
1364 1367	D-8 E-8	D304 D307	G-7 G-8	D547 D548	D-4 G-2
Q368 E-8 Q369 E-8		D309 D310	G-8 G-8	VARIA RESIS	
1375 1401	D-8 B-6	D311 D315	G-9 E-8	RV501	B-2
2402 2403	B-6 B-6	D317	D-9		
WTU0	0-0	D320	D-9		i

-A BOARD- <Conductor Side>



- 56 -

# 9

### NOTE:

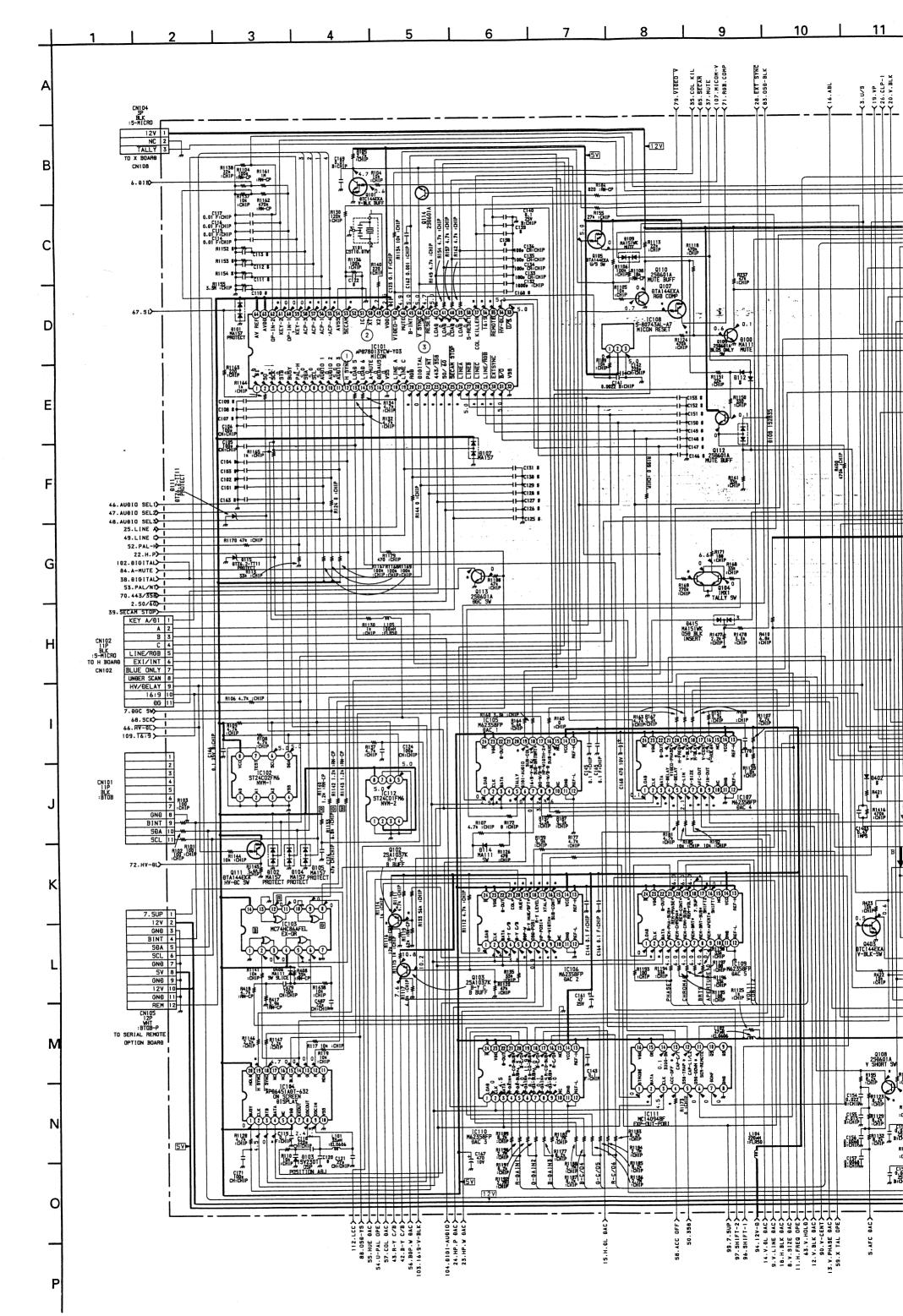
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

A BOARD (CONDUCTOR SIDE)

(CONDUCTO					
IC 101 A 1C108 B 1C200 A 1C303 E 1C404 D 1C500 G 1C505 E 1C507 D 1C511 A 1C512		Q405 Q407 Q409 Q417 Q418 Q419 Q420 Q421 Q422 Q423 Q424 Q428 Q431 Q434 Q439 Q444 Q439 Q501 Q502 Q503 Q505 Q506 Q507 Q508 Q509 Q511 Q512 Q513 Q514 Q515 Q516 Q517 Q512 Q513 Q514 Q515 Q516 Q517 Q519 Q519 Q519 Q519 Q519 Q519 Q519 Q519	B-10 B-9 B-9 B-9 B-9 B-9	D322 D323 D324 D325 D326 D333 D337 D344 D345 D346 D347 D363 D364 D401 D402 D404 D405 D407 D410 D411 D422 D425 D427 D500 D501 D502 D503 D504 D505 D506 D507 D508 D509 D510 D511 D512 D513 D514 D515 D516 D517 D518 D519 D513 D514 D515 D516 D517 D518 D519 D513 D514 D515 D516 D517 D518 D519 D523 D524 D525 D526 D527 D528 D529 D530 D531 D532 D533	
Q339	)-8 )-8 [-9 )-8	D102 D103 D107 D111	B-9 B-9 B-9 B-9	D530 D531 D532	A-1 B-4 B-4
Q369 E	-8 -8 )-8	D309 D310	G-8 G-8	VARIA RESIS	
Q401 E	3–6 3–6	D311 D315 D317	G-9 E-8 D-9	RV501	B-2
Q403 E	3-6	D320	D-9		

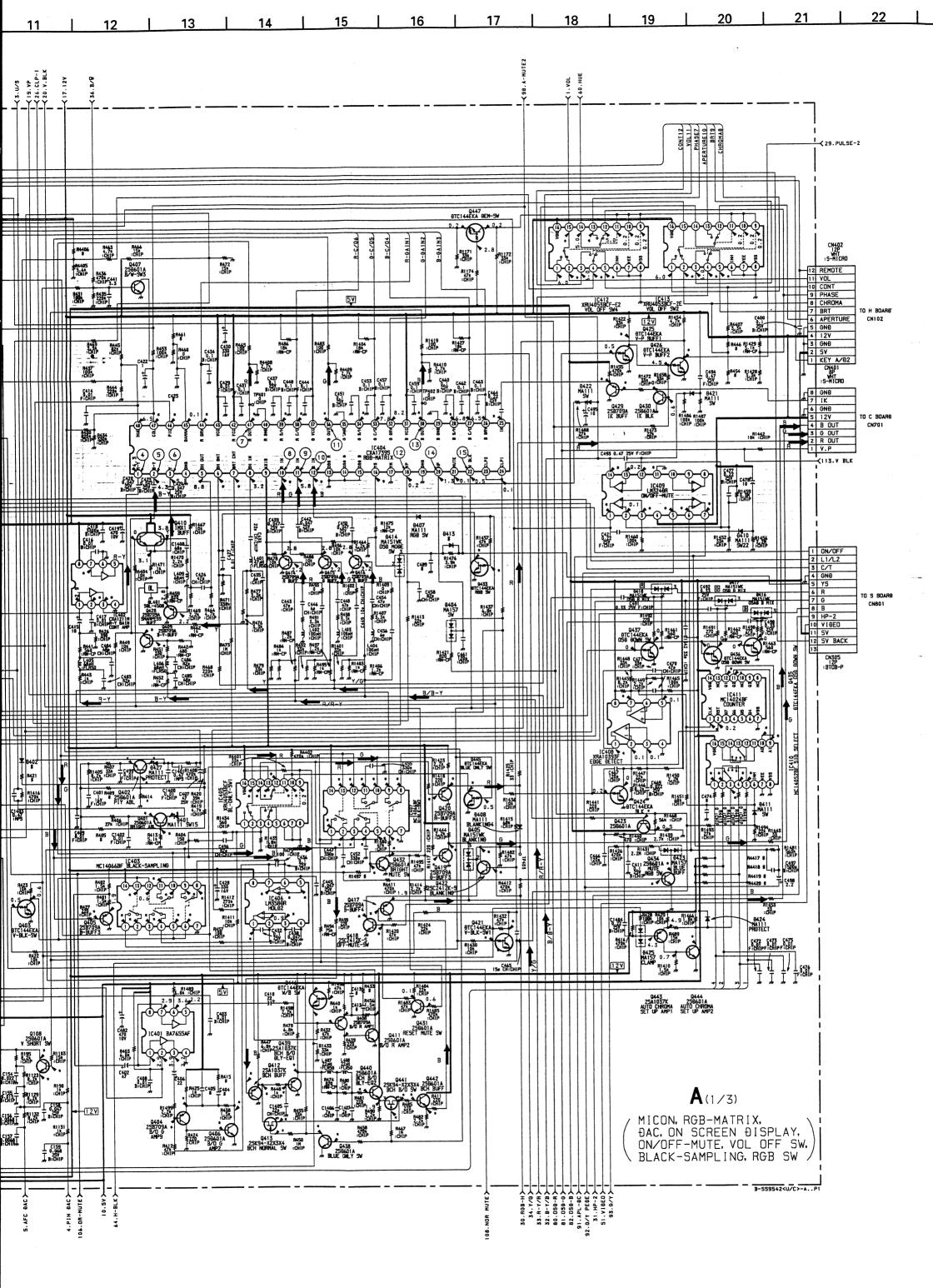
• Pattern of the rear side. -A BOARD- <Conductor Side> B sony

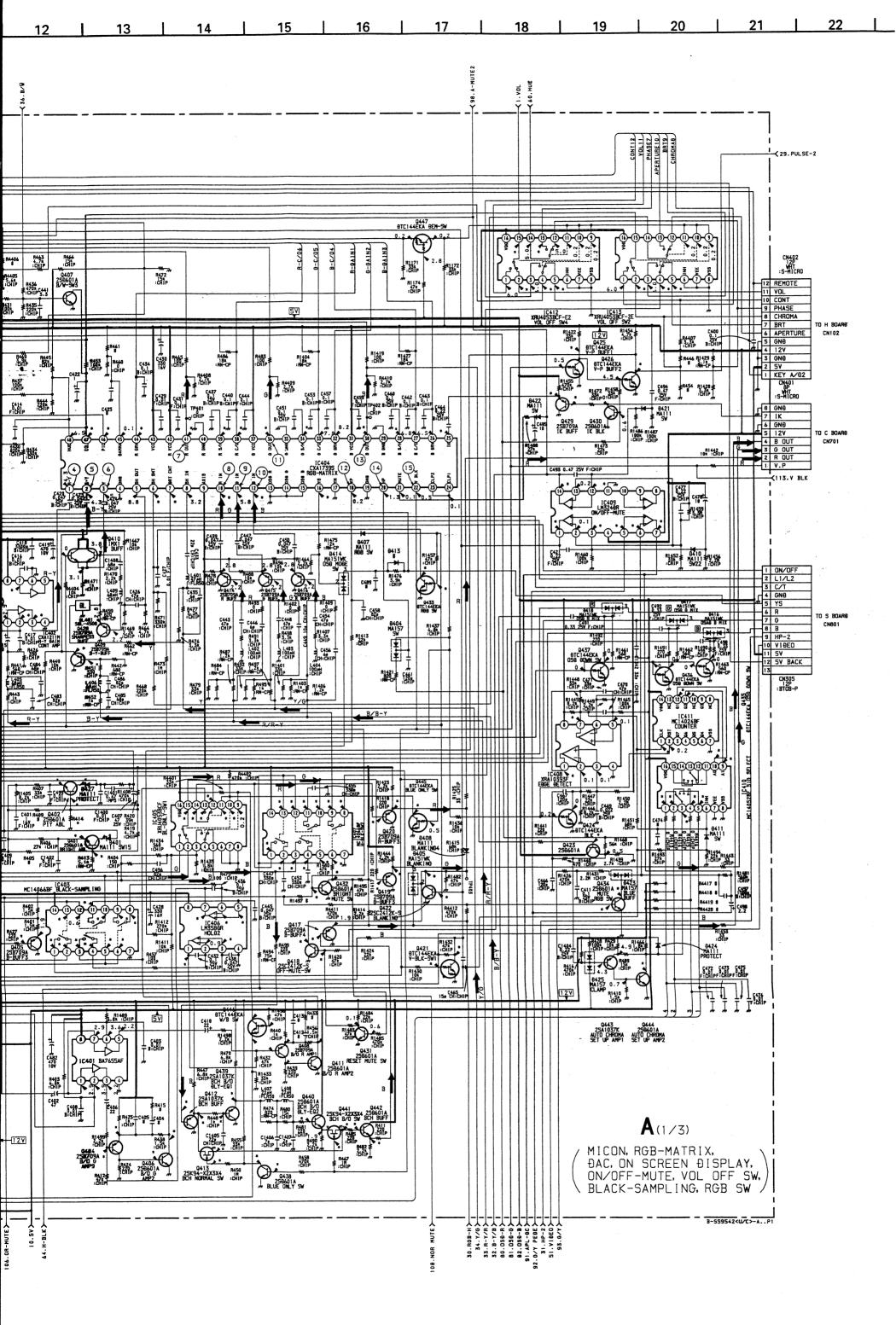
• : Pattern from the side which enables seeing.



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## A ROARD WAVEFORMS

·A BOARD WAVEF	ORMS	
1) 4.3 Vp-p(H)	5.6 Vp-p (10MHz)	3 4.8 Vp-p ( V )
PAL 0.3 Vp-p ( H ) SECAM 0.32 Vp-p ( H )	NTSC3.58.4.43 0.28 Vp-p ( H ) 5-V1060 0.35 Vp-p ( H )	© 10.45 Vp-p (H)
5 	5 -~M/L~M/L~ 5-718E0 0.45 Vp-p ( H )	6 PAL 57 Vp-p ( H ) SECAN 0.45 Vp-p ( H )
6 -24 Mlay Mlay NTSC3.58 4.43 0.4 Vp-p ( H ) S-V10E0 0.52 Vp-p ( H )	PAL 2.4 Vp-p ( H ) SECAM 2.3 Vp-p ( H )	7 NTSC3.58 2.1 Vp-p ( H ) NTSC4.43 2.2 Vp-p ( H )
7 	7 	(B) (M) (M) (M) (M) (M) (M) (M) (M) (M) (M
9 ANALOG RGB O. 6 Vp-p ( H )	ANALOG ROB 0.6 Vp-p(H)	PAL 2.6 Vp-p ( H ) SECAH 2.5 Vp-p ( H )
NISC3.58 2.4 Vp-p ( H ) 2.5 Vp-p ( H )	1) 	ANALDO POB 3.0 Vp-p(H)
12 4.6 Vp-p ( V )	PAL 1.8 Vp-p ( H ) SECAM 1.9 Vp-p ( H )	NTSC3.58 Vp-p(H) NTSC1.7 Vp-p(H)
(H) q-qV e	AMALOG RGB 2. 4 Vp-p ( H )	3.7 Vp-p(H)
3.6 Vp-p ( V )		

## A BOARD (1/3) \* MARK LIST

	PVM-14M4U/E/A	PVM-14M2U/E/A
CN305	13P : BTOB-P	12P : BTOB-P
R407	33k : CHIP	15 :CHIP
R414	#	3k : CHIP
		# : Not Used

	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	ANALOG RGB
101 ②	2.3	2.4	2.2	2.2	2.0	2.3
(3) (6)	4.5 4.1	4.6 3.4	4.5 0	0.1	0	4.5 0
(D)	3.4 0	3.5 0	3.5 0	3.5 0	3.1 4.8	3.5 0
Ø)	0 4.9	5.0	0 0	0	0	4.9 0
<b>3</b>	5.0 5.0	5.0 5.0	0	5.0	0	0
₫	0	5.0	0	0	0	0
<b>6</b> 9	0.1 5.0	5.0	0.1 5.0	0.1 5.0	0	0.1 5.0
3	5.0 5.0	5.0 5.0	5.0 5.0	5.0 5.0	4.9 5.0	0.1
<b>S</b> S	4.2	4.1	4.6 4.6	5.0 5.0	3.9 3.6	3.9 3.7
9	0.3	4.4 0.1	0.1	0.7	0.1	0.1
<b>9</b>	4.0	3.4	3.6	3.7	3.9	4.0
<b>9</b>	0.5 3.0	0.9 2.5	2.6	0.8 2.3	3.1	1.9
9	3.6 4.0	3.0 4.0	2.9 4.0	3.2 4.0	3.9 2.9	4.0 4.0
C103 <b>⑤</b>	0.2	0 2.3	0.2	0.2	0	0 2.3
0104 <b>(</b> )	2.3 3.5	3.5	2.2 3.5	2.2 3.5	3.1	3.5
C105 (3)	2.3 O	2.3 0.1	2.2 0.1	0	11.8	2.3 0
(3)	2.6 5.4	2.7 5.4	2.7 5.4	2.6 5.4	2.8 6.6	2.6 8.1
C106 (3)	2.3 5.4	2.3 5.4	2.2 5.4	2.2 5.4	2.1	2.3 5.4
<u> </u>	2.4 7.8	2.4	2.4 7.8	2.4	0.6	2.4
9	5.1	5.1	5.1	5.1	4.0	5.1
<b>®</b>	0.1 3.1	10.5 3.1	10.5 2.6	10.5 3.1	10.9	10.5 2.5
<b>(9)</b>	2.4 6.3	4.6 6.3	2.1	9.0	10.7	3.2
<b>89</b>	3.6 0.8	3.6 1.8	4.8 0.4	3.6 0.3	4.3 2.4	9.5 3.1
C107 ②	4.6	4.5 :	4.5	4.5	4.4	4.5
③ ④	2.3	2.3 2.8	2.2	2.8	2.1 3.3	2.8
<u> </u>	1.5 2.9	2.9	2.9	2.9	2.3	2.9
<b>(</b> )	2.6 2.9	2.6 2.9	2.6 2.9	2.6	2.9	2.6 2.9
<b>Ø</b>	2.6 3.2	2.6 3.2	2.8 5.4	2.8 5.4	2.8	2.8 5.4
3	4.5	4.6	5.0	5.0	3.7	5.0
0 C109 (2)	6.3 4.6	6.3 4.5	6.1 4.5	6.1 4.5	6.0 4.4	6.1 4.4
<u> </u>	2.3	11.9	11.9	11.9	11.9	0.1
(B) C110 (3)	11.9 2.3	11.9 2.4	0.1 2.2	2.2	0.1 2.0	11.8
•	7.2	7.2	7.2	7.2	8.3	7.2
<b>19</b>	5.8 11.9	5.8 11.9	5.8 11.9	5.8 11.9	6.2 7.8	5.8 11.9
<del>0</del>	3.7	7.9 3.7	7.9 3.5	7.9 3.5	7.8	7.9 3.6
C111 <b>③</b>	0.3	0.3	0.3	0.3	0.1	0.3
0	0	5.0	5.0	5.0	0	5.0
C402 ②	5.0 3.1	5.0 3.9	5.0	5.0 3.0	3.0	5.0 3.6
<u> </u>	2.9	2.3	2.3	0	2.2	2.2
C403 ①	0.8	1.2	0.8	0.8	0.8	0.9
3	1.4 0.8	1.3 0.8	0.9	0.9	1.3 0.8	0
<u> </u>	0.6	0.5	0.6	0.6	0	0.6
<u>6</u>	0.5 1.0	1.0	1.0	1.0	0.6	1.1
9	1.6	1.5	1.1	1.1	1.4	1.6
0	0.9 0.6	1.0 0.6	1.0 0.6	1.0 0.6	0.8	1.1 0.6
C404 (6)	3.0	3.0	3.0	3.0	4.5	0
<u></u>	5.6	5.6	5.6	4.9 5.6	5.6	6.1 5.8
<b>0</b>	5.6	5.6 0.1	5.6	5.6	5.6	5.8
<b>3</b>	3.8 7.1	6.6	4.1 8.0	8.0	7.7	3.6 7.9
9	1.4	1.3	1.2	1.1	1.2	1.4
<b>S</b>	1.4	1.3	1.2	1.1	1.2	1.5
<u> </u>	7.8 6.9	7.8	7.7 7.8	7.8	8.0 7.6	7.7
<b>0</b>	1.2 7.2	1.2 7.2	1.0 7.2	1.0 7.2	1.2 8.3	1.3 7.2
•	7.2	7.2	7.2	7.2	6.9	7.0
C405 ①	1.6	1.5	1.1	1.3	1.4	1.6
② ③	1.4	1.4	0.9	0	1.2	1.5
<b>(4)</b>	1.4	1.3	1.0	0	1.2	1.4
0	0.5 0.5	0.5	0.6	1.0	0.3	0.2
<b>O</b>	1.2	1.2	0.8	1.1	1.2	1.3
0	1.2	1.2	0.8	1.3	1.3	1.4
(S) IC406 (I)	1.4 4.8	1.3 5.1	1.0 4.8	1.3 4.8	1.2 4.8	1.5 5.1
(3) (5)	0.8 1.0	0.9	0.9	0.9 1.0	8.0 8.0	1.0
<b>6</b>	1.0 5.1	1.0	1.1	1.1	0.8	1.1
C407 ①	1.2	1.2	0.9	1.2	1.2	1.3
3	1.4	1.3	1.0	1.3	1.2	0.5
<b>4</b>	0.6 2.0	0	0.7 2.0	0.5 2.0	0.5 2.0	0.7 2.0
6	11.7	10.7	11.6	11.3	11.7	11.2
<u>®</u>	5.5 5.5	5.5 5.5	5.5 5.5	5.5 5.5	5.4 5.4	8.5 8.4
<b>10</b>	1.4 0.6	1.4	0.7	1.3 0.6	1.2 0.5	1.5 0.6
<u>0</u>	2.0	1.7	2.0	2.0	2.0	2.0
C408 ①	3.1	2.9	2.9	3.1	3.7	3.4
(C409 (D	0	3.8 8.8	9.0	9.4	0	7.5
3	0 5.9	0.6 5.9	0.4 6.3	0.3	0.3 5.9	1.6
<u> </u>			6.3	6.0	5.9	5.9
<u> </u>	5.9	5.9 5.9	6.3	6.0	5.9	5.9

	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	ANALOG RGB
IC410 ①	3.8	4.0	4.0	4.0	0	3.9
2	3.0	3.1	2.4	3.1	ō	4.0
3	1.3	0.7	1.4	1.6	2.3	1.5
<b>(4)</b>	3.5	3.6	3.0	3.8	3.9	3.9
5	0.6	1.3	1.1	1.1	3.1	1.7
<u> </u>	4.0	4.0 2.0	1.9	3.9 1.8	2.5	1,4
0	2.0	2.3	2.3	2.0	1.8	3.0
IC411 ①	4.1	4.0	3.9	3.8	4.2	4.1
0	1.8	2.0	1.9	1.8	2.5	1.3
0	2.0	2.3	2.3	2.1	1.8	3.0
IC412 ②	0.4 8.9	0.5 8.9	0.4 8.9	0.4 8.9	5.9 8.9	0.6 8.3
<u> </u>	9.0	8.9	9.0	8.9	8.9	8.3
0	6.0	6.0	' 6.0	6.0	6.0	0
(3)	0.4	0.5	0.4	0.4	5.9	0.5
C413 ②	7.9	8.0	8.0	8.0	0	6.9
<u>(1)</u>	0	5.5	5.5	5.5	5.4	0
0	5.5 3.1	5.5 3.1	5.5 3.1	5.5 3.1	5.4	8.6 5.1
8	3.1	3.1	3.1	3.1	6.0	5.1
(3)	7.9	7.9	8.0	7.9	6.3	6.9
Q102 B	10.9	10.9	10.9	10.9	10.7	10.9
С	8.1	8.1	8.1	8.1	0	8.1
E	11.5	11.5	11.5	11.5	11.3	11.5
2104-1 B	- 0.2	0	- 0.2	0	0	- 0.2
Q107 B	5.0	5.0	5.0	5.0	5.0	0.1
0108 C	2.6	2.6	2.6	2.6	2.9	5.0 2.6
E E	2.6	2.6	2.6	2.6	2.9	2.6
Q111 B	5.0	5.0	0	Ö	4.9	4.9
С	0.4	0.4	0	0	0.4	0.4
Q113 C	4.1	4.3	4.2	4.2	3.8	4.0
Q401 B	1.1	0.8	1.5	1.6	1.2	1.0
C E	7.5	5.5 1.6	6.0 3.2	5.2 3.4	8.4 3.1	10.0
Q402 B	0.5	0.5	0.5	0.5	2.4	0.5
С	9.5	7.7	8.1	7.4	10.4	6.9
E	1.4	1.6	3.2	3.3	3.2	1.0
Q404 B	5.3	4.1	4.9	5.2	5.3	5.2
E .	6.1	6.3	6.0	6.1	6.1	6.2
Q405 B	0.7	0.7	1.2	0.7	0.7	0.7
C C	1.6	1.5	1.0	1.5	1.4	1.6
Q407 B	0	0	0	0	0	0.6
С	6.6	6.6	6.6	6.6	5.4	0
Q408 B	5.3	4.7	4.9	5.0	5.2	5.2
E .	6.0	6.2	5.9	6.1	6.0	6.1
Q409 B	1.9	1.6	1.6	1.6	1.7	1.6
Q411 C	1.4	1.4	2.2 0.9	1.3	2.3 1.3	1.4
Q412 B	1.3	1.3	1.0	1.3	1.1	1.4
Ε	2.0	1.9	1.7	1.9	1.8	2.0
Q413 G	2.0	- 15.1	1.6	- 2.2	1.8	- 2.1
<u>0</u>	2.0	1.9	- 4.3	0	2.2	2.0
Q417 B	2.0	1.9	1.7	1.9	1.8	1.4
Q417 B	2.1	2.1	1.7	1.7	1.7	2.0
0419 B	1.4	1.4	1.2	1.1	1.2	1.5
Ε	2.0	1.9	1.7	1.7	1.8	2.0
Q420 B	1.2	1.2	1.0	1.0	1.2	1.3
Q422 C	1.8	1.8	1.6	1.6	1.8	1.9
Q422 C	2.1 0.5	2.1 0.3	0.4	1.7 0.4	0.4	2.0 0.2
Q425 C	4.5	4.5	4.5	4.5	4.7	4.5
Q426 C	0.8	0.8	0.7	0.7	0.7	0
Q429 B	0.1	0.8	0.4	0.4	0.1	0.1
Ε	0	- 2.3	- 1.2	- 1.2	0.4	0.4
Q432 B	- 0.3	- 3.8	- 3.4	- 2.7	- 0.1	- 3.9
C Q433 B	11.9	11.6 - 0.1	11.8	11.8	12.0 0	11.6 2.7
C C	3.0	3.0	3.0	3.0	4.5	0
Q434 B	- 0.1	0	0	0	- 0.1	0.4
С	3.6	4.7	4.5	4.8	2.9	0
Q438 B	- 0.4	- 2.9	- 3.1	- 2.4	0	- 2.4
С	11.7	11.4	11.7	11.7	11.6	11.7
Q439 B	2.0	1.9	1.8	1.7	1.8	2.0
Q440 B	2.6	2.5 2.5	2.4	2.4	2.4	2.6
Q441 G	- 1.1	- 13.0	1.7	- 4.8	0	- 0.7
D D	2.0	1.9	- 8.1	1.9	1.8	2.0
S	2.0	1.9	1.6	1.9	1.8	2.0
Q442 B	1.3	1.3	1.1	1.1	1.1	2.1
E	0.9	0.9	0.7	0.7	0.7	1.5
0444 C	1.2	1.1	1.2	1.4	2.2	1.3
Q445 C	0.4	1.2	1.4	1.3	0.3	0.4

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## A BOARD (2/3) \* MARK

	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	ANALOG RGB
C301 ①	2.8	0	2.8	3.0	3.0	2.3
2	2.0	0	1.8	1.7	1.7	3.5
			2.9	0.3	2.9	2.9
302 ①	2.9	2.9				
5	5.3	5.1	4.5	4.5	4.5	4.5
0	10.5	8.4	0	0	0	0
C303 ®	2.3	2.6	2.2	2.2	2.6	2.8
0	0.1	4.2	0.6	0.6	0.6	0.1
(6)	3.9	2.8	3.1	3.1	3.3	3.9
304 🛈	2.2	2.6	2.2	2.2	2.2	2.2
9	9.4	0.1	9.4	9.4	9.4	9.4
0	7.3	7.3	2.5	2.5	2.6	2.5
						2.5
0	7.3	7.3	2.5	2.6	2.6	
(0)	1.9	1.9	2.2	2.2	2.2	2.2
(5)	2.5	2.5	2.2	2.2	2.3	2.2
C305 ①	2.8	2.8	2.8	0	2.8	2.8
<b>(4)</b>	2.5	1.1	2.5	2.4	2.4	1.3
0	4.1	4.1	4.1	4.1	4.2	4.5
<u> </u>	0.4	0.2	0	0	0	0.1
0	2.6	2.6	2.5	2.4	2.5	2.7
<b>Ø</b>	0	0	0.8	0.8	0.9	0.9
8	2.1	2.7	1.9	1.9	1.9	2.7
C306 ①	8.1	8.1	8.1	8.1	8.1	0
2	0	0	0	0.1	0.1	4.4
C309 ②	3.6	0	3.6	3.6	3.6	3.6
			<del></del>			
<u> </u>	0	0	0	0	0	4.4
C310 ①	6.2	6.2	6.2	6.2	6.2	5.9
3	6.3	6.3	6.2	6.2	6.2	5.9
13	5.9	5.9	6.0	6.3	5.9	5.9
C311 ①	0	6.2	6.2	6.2	6.2	6.2
2	6.2	6.2	6.2	6.2	6.2	5.9
<u> </u>	6.2	6.3	6.3	6.2	6.2	5.9
	3.3	3.3	2.9	2.9	2.9	0
0	5.9	5.9	5.9	6.2	5.8	5.9
0	0.4	0.4	0.4	0.4	0.5	0.7
C312 ②	3.6	0	3.6	3.6	3.6	3.6
<u> </u>	0	0	0	12.0	0.1	4.5
C313 ①	0	6.3	0	6.3	6.3	6.3
C314 ②	0	3.0	7.6	0	3.0	0
<u> </u>	0	0	0	0	2.9	0.1
C315 ①	0.4	0.4	0.4	0.4	0.4	0.6
<b>(</b>	0.6	0	0.6	0.6	0.6	0.6
<b>(D)</b>	9.4	9.3	9.3	9.2	9.3	9.4
<del></del>	2.5	2.5	2.5	2.5	2.5	7.2
<del></del>	0.4	0.4	0.4	0.4	0.4	0.6
<b>(</b>	0.4	0.4	0.4	0.4	0.4	0.6
C317 @	2.0	0	2.0	2.1	2.0	12.0
<u> </u>	12.0	. 0	12.0	-12.0	12.0	12.0
9	10.7	10.6	10.6	10.6	10.5	10.7
0	9.4	9.4	9.4	9.4	9.1	9.4
C318 (5)	11.5	11.5	0	11.4	11.4	11.4
C320 ①	6.3	6.3	6.3	6.3	6.3	0
<u> </u>	3.0	0	0	3.1	0	0
<u> </u>	0	0	0	0	3.3	0
C321 ②	0	0.1	0.1	0	2.9	0
<b>④</b>	0	0	0	0	0.1	2.7
C322 ⑤	5.8	5.9	6.0	6.3	5.9	5.9
C323 ⑤	6.2	6.3	6.2	6.2	6.2	5.9
<u> </u>	0	5.6	5.6	5.6	5.6	5.6
	6.2		6.2	6.2	6.2	
C324 ⑤		6.2				5.9
C326 ①	5.9	5.9	6.0	6.3	5.9	5.9
0	5.9	5.9	5.9	6.2	5.8	5.9
3	5.9	5.9	5.9	6.2	5.8	5.9
5	1.7	1.9	1.6	1.6	2.1	2.1
			2.3			
<u> </u>	2.4	1.0		2.3	2.3	4.6
<u> </u>	0	- 0.1	10.8	0	- 0.1	0
<b>®</b>	6.3	6.3	6.3	6.3	6.2	5.9
9	6.3	6.3	6.3	6.3	6.2	5.9
0	6.3	6.3	6.2	6.2	6.2	5.9
		1 3.5	J		J 312	

A BOARD IC303 CXA1214P

PERMUTATOR

B.A DEN

	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	ANALOG RGB
IC326 Ø	6.2	6.2	6.2	6.2	6.2	5.9
0	6.2	6.2	6.2	6.3	6.2	5.9
•	6.2	6.2	6.2	6.2	6.2	5.9
IC350 ①	6.6	6.5	6.4	6.3	6.1	6.9
2	6.2	6.2	6.2	6.3	6.0	6.4
<b>3</b>	6.2	6.2	6.2	6.3	6.0	6.4
0300 B	2.5	2.5	2.2	2.2	2.2	2.2
C	10.2	10.2	10.4	10.5	10.4	10.5
E	1.9	1.9	1.6	1.6	1.6	9.8
0301 E	8.6 5.7	8.5 5.7	8.2 5.7	8.3 5.7	8.5 5.5	5.7
Q303 E	6.3	6.3	6.3	6.4	6.2	6.3
U304 B	5.7	5.7	5.7	5.7	5.5	5.7
Q305 B	8.6	8.5	8.2	8.3	8.5	9.8
E	7.9	7.9	7.6	7.7	7.9	9.1
Q307 E	1.4	1.4	1.1	1.2	1.4	2.7
Q309 B	1.4	1.4	1.1	1.2	1.4	2.6
C	0.1	0.1	0.2	0.1	0.1	0
E	0.7	1.8	1.7	1.8	0	1.8
0312 C	8.2	8.2	8.6	8.3	8.3	8.1
Q313 B	8.2	8.2	8.6	8.3	8.2	8.1
Ε	8.8	8.8	9.3	9.0	8.9	8.7
Q314 B	11.9	6.4	11.9	11.9	11.9	11.9
С	0	11.9	0	0	0	0
Q315 B	3.3	3.2	2.9	3.1	3.2	3.3
Ε	3.9	3.9	3.5	3.8	3.8	4.0
Q318 B	12.1	12.0	11,7	11.9	12.1	12.1
С	1.0	1.0	1.2	1.0	1.0	0.9
Q322 B	2.4	2.4	2.3	2.3	5.6	2.4
E	1.8	1.8	1.8	1.8	5.0	1.8
Q323 B	5.0	5.0	0	0	0	0
C	0	4.2	3.5	3.5	3.5	3.6
Q324 B	4.1			0.8	0	0.9
	0	0	0.8 2.2	2.2	2.0	1.3
Q328 B	2.2	2.2	2.8	2.8	0	0
Q329 D	2.0	2.0	2.2	2.4	0	2.2
G	0	0	1.6	0	2.9	2.8
Q332 B	4.9	5.0	0	4.9	0	0
C	0	0	4.4	0	4.3	4.4
Q333 B	1.7	1.7	1.9	1.8	1.7	1.7
Ε	1.5	1.5	1.7	. 1.5	1.5	1.4
Q336 G	4.7	4.6	4.6	4.7	4.2	4.8
O	- 4.3	4.3.	4.3	4.3	4.5	4.3
Q339 B	12.3	- 12.5	12.5	12.4	12.5	12.3
Q347 B	0.1	4.2	0.1	0.1	0.6	0.1
C	9.4	0.1	9.4	9.4	9.4	9.4
Q349 B	2.8	2.7	2.7	2.7	2.2	2.8
E	3.4	3.3	3.4	3.4	2.8	3.4
Q354 B	12.0	0.6	0	0	0	0
Q358 E	12.0	2.2	0	2.2	2.2	2.2
Q360 1	6.2	6.2	6.2	6.3	6.1	6.4
3	6.2	6.2	6.2	6.3	6.0	6.4
5	1.3	4.7	2.2	4.1	5.3	3.8
Q361 B	4.9	4.9	5.0	5.0	5.0	0.8
C	0.1	0	0	0	0.1	4.9
Q362 C	9.0	9.0	9.0	9.5	9.2	8.5
Q364 C	3.3	3.3	2.9	2.9	2.8	2.9
Q365 B	0.4	0	0.3	0.3	0.4	0.4
Q369 B	8.0	0.9	0.8	0.8	0.9	4.9
Q372 B	0	0	0	0	0	4.9
С	11.7	11.7	11.8	11.8	11.7	0
Q374 B	10.4	10.3	10.1	10.3	10.7	6.4
C	0	0	0	0	6.2	6.7
E	6.4	6.4	6.3	6.3	6.1	6.7
Q375 B	10.7	10.8	10.7	10.7	10.7	5.9
C	0	0	0	0	6.3	6.4
Ε	6.2	6.2	6.2	6.2	6.0	6.4

SANPLE

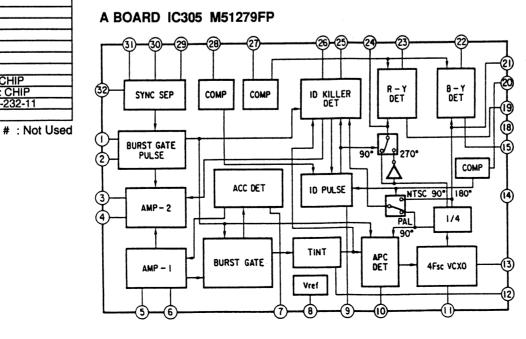
COLCON

COLCON

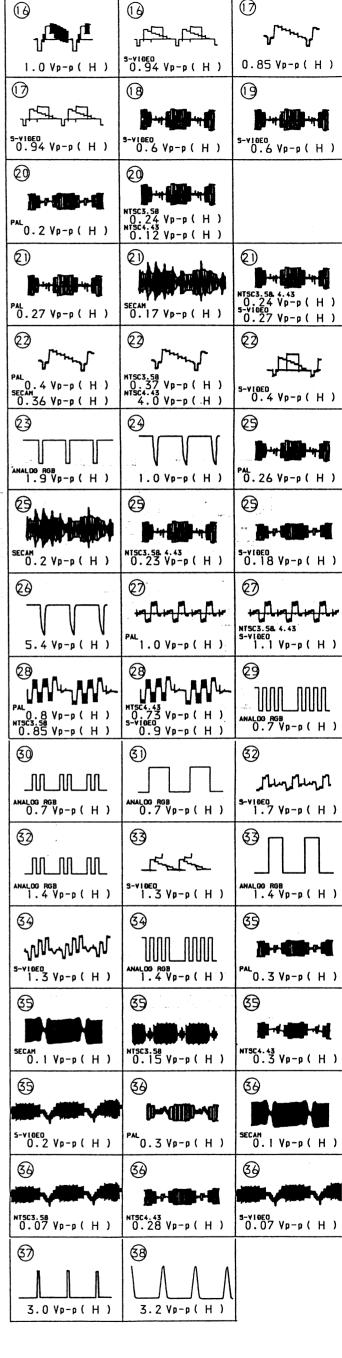
PIC NTX

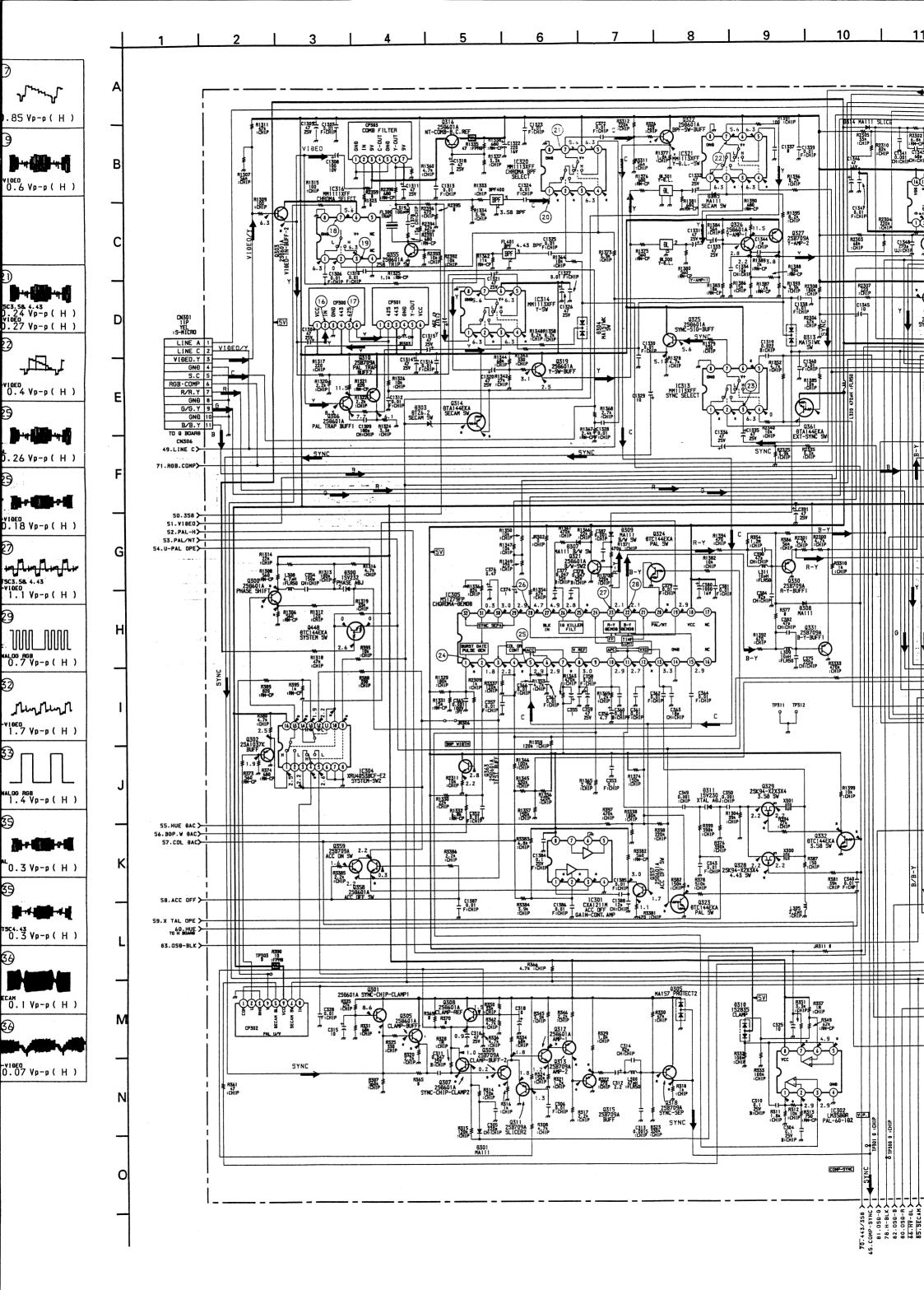
## A BOARD (2/3) \* MARK LIST

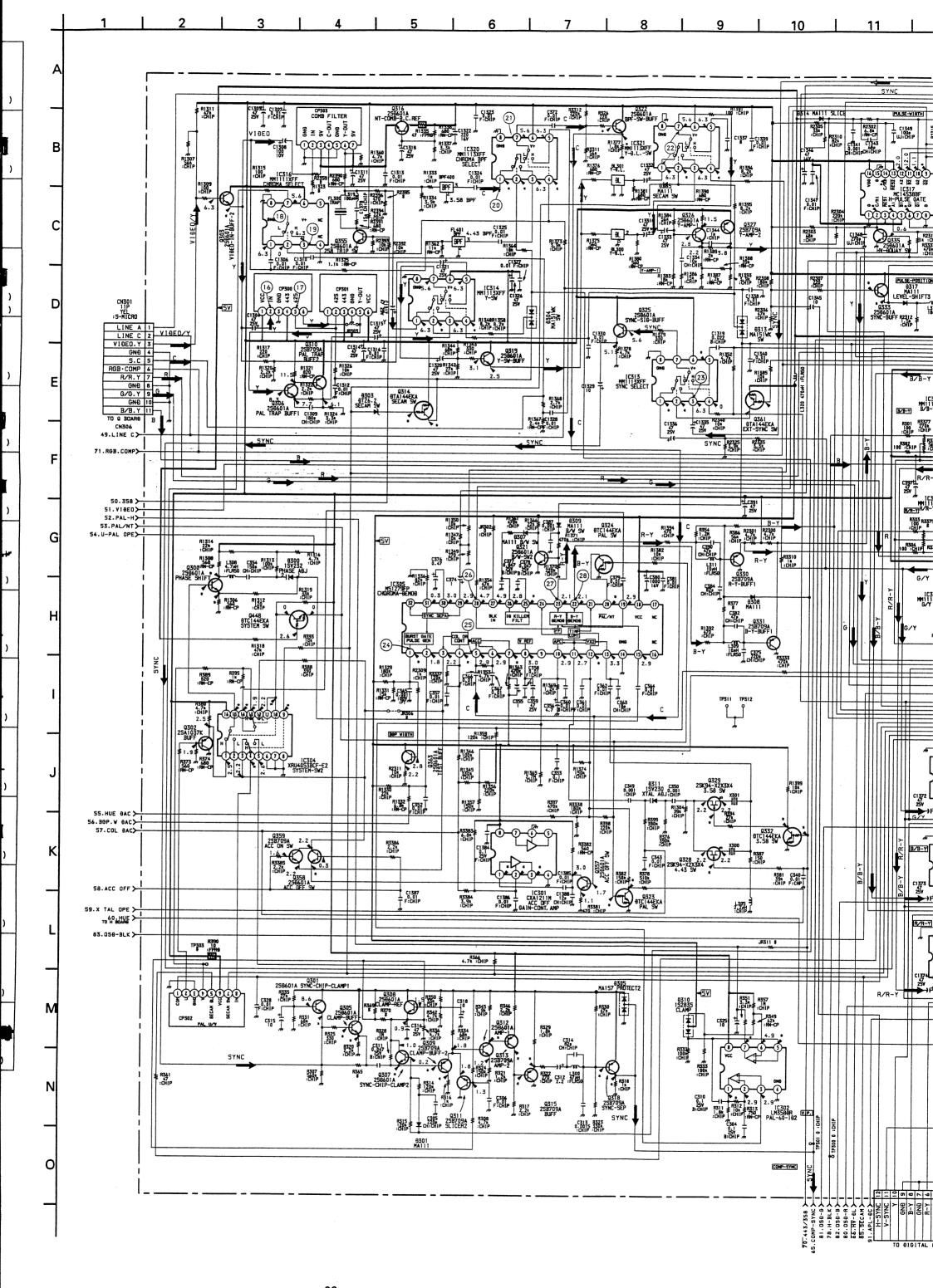
	DVA4 4 44 44 1 1/E/A	T DVA 14NAOLUEIA
	PVM-14M4U/E/A	PVM-14M2U/E/A
C525	0.011 2kV : PP	0.01 2kV : PP
C527	#	470P 2kV
C553	0.082 200V : PT	#
C1520	150P 2kV B	#
C1524	100	#
C1525	0.0047 2kV E	#
C1537	0.33 100V : MPS	#
CN508	2P WHT: MINI	#
D544	MA111	#
D545	MA111	#
D546	V11N	#
D548	RD16ESB2	#
Q526	2SC4686A	#
Q527	2SC4686A	#
Q531	2SA1037K	#
Q532	IRF520	#
R559	330k : CHIP	220k : CHIP
R562	47 1/4W : FPRD	#
R566	47k: RN-CP	27k : RN-CP
R574	47k : CHIP	#
R577	1 10k : CHIP	#
R581	1k : CHIP	#
R1501	12k : CHIP	10k : CHIP
R1539	100k : CHIP	#
R1542	22 : FPRD	#
R1580	47k : CHIP	#
R1581	10M 1W:RS	#
R1582	2M 1W : RS	#
R1583	470 1/2W : RF	#
R1599	10k 1/2W : RC	#
R2502	22k : CHIP	18k : CHIP
R2504	150k : CHIP	100k : CHIP
T501	1-453-233-11	1-453-232-11
T502	DFT	#



#### ·A BOARD WAVEFORMS

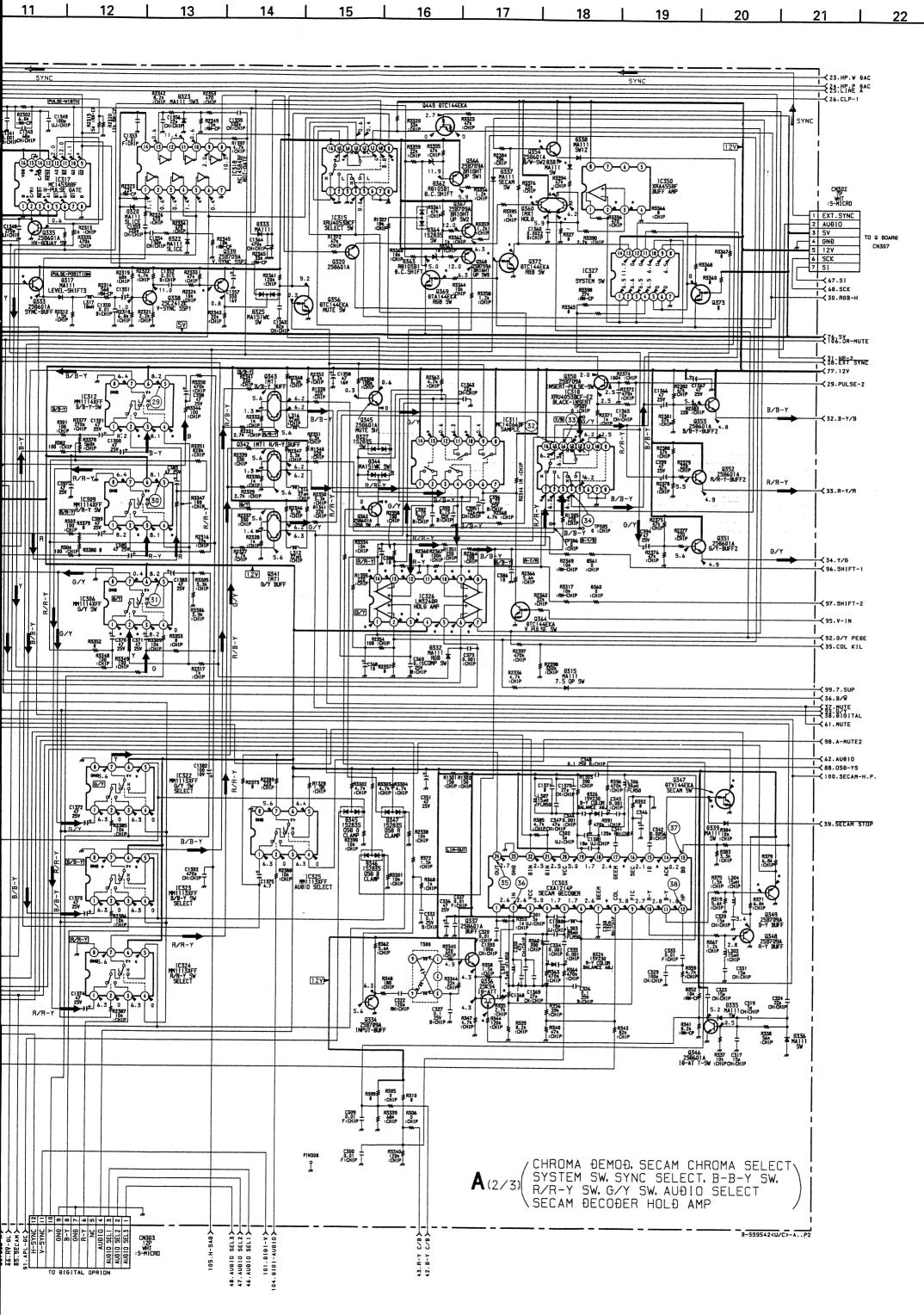


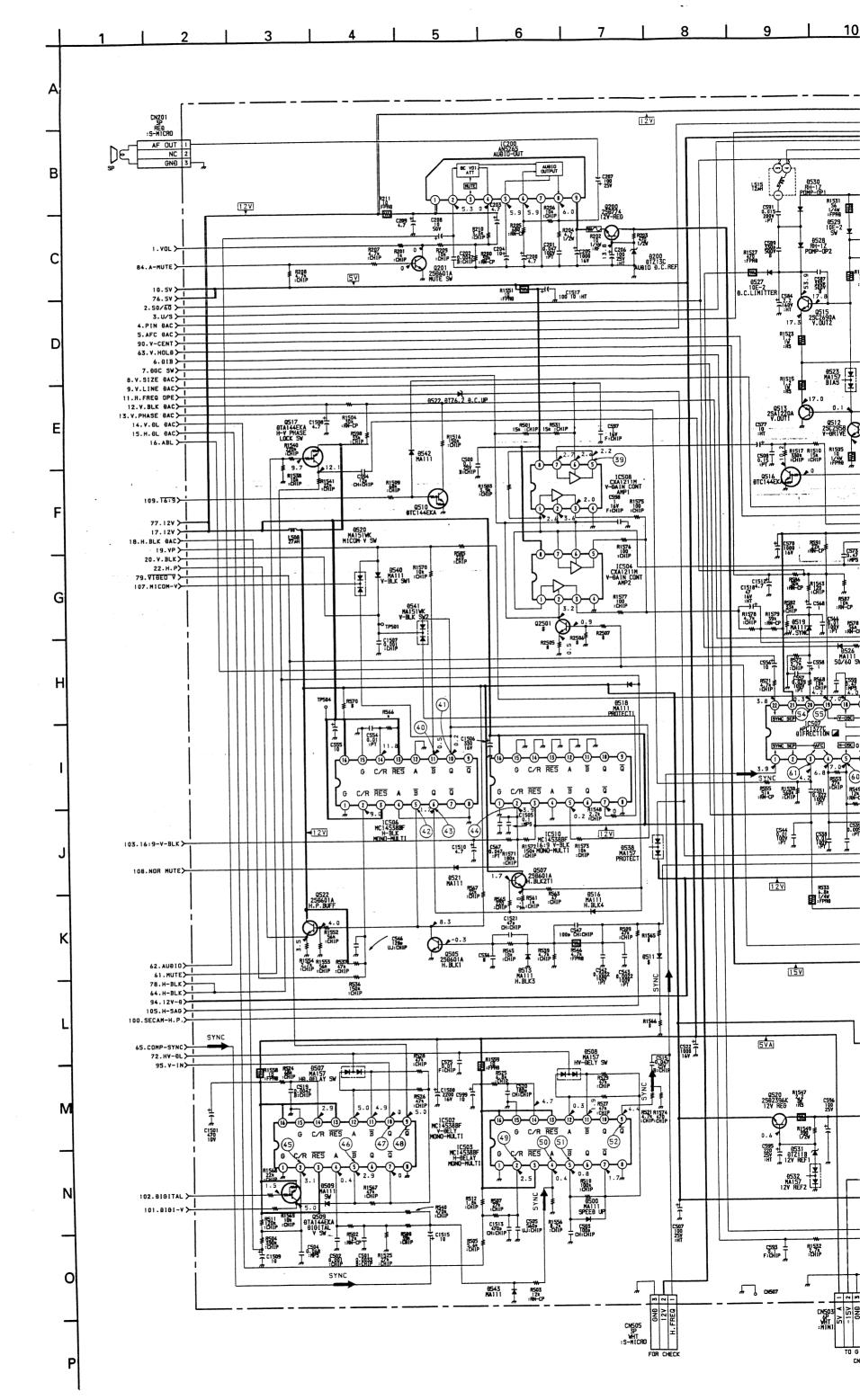


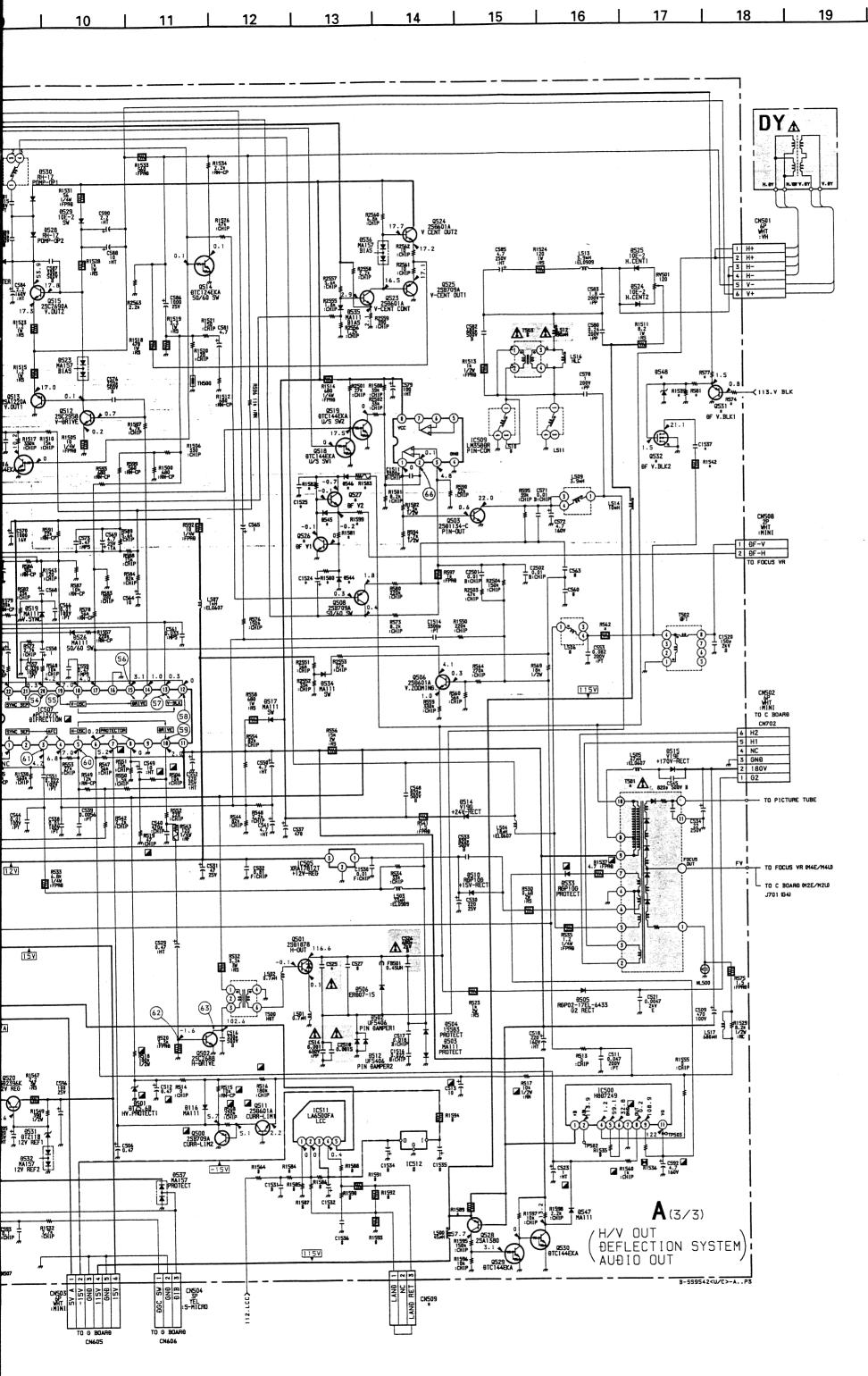


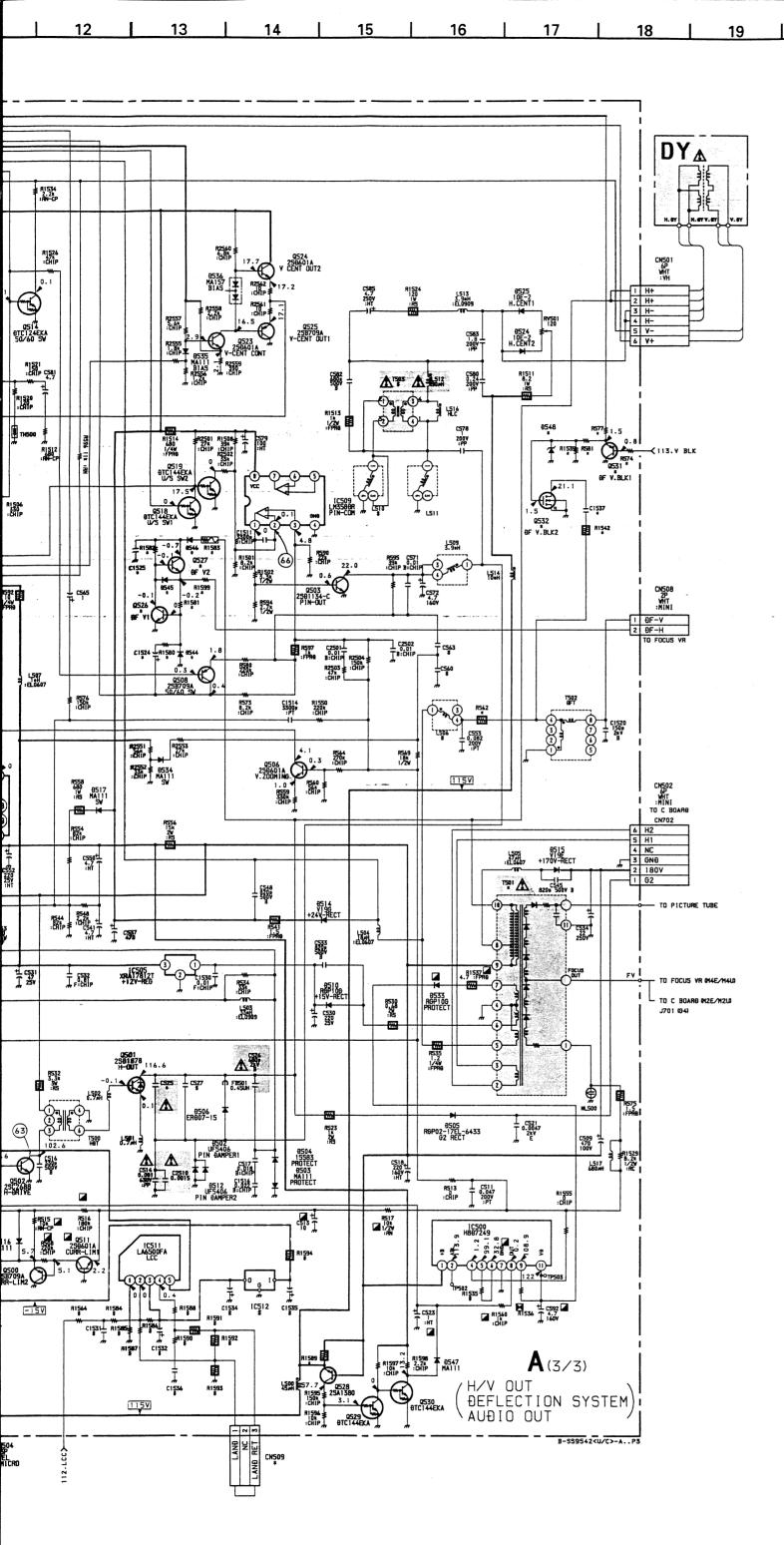
- 66 -

<del>-</del> 67









#### **A BOARD WAVEFORMS**

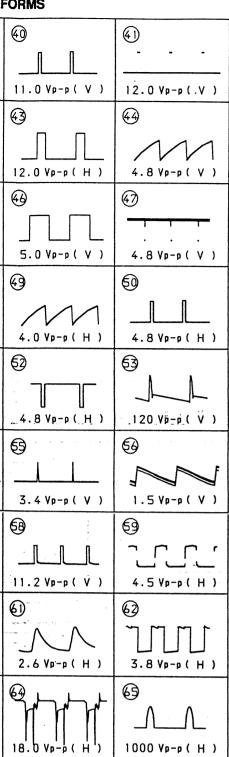
·A BOARD WAVE	FORMS
<b>39</b>	60
0.7 Vp-p(V)	11.0 Vp-p
42	€3
10.0 Vp-p ( H )	12.0 Vp-p
<b>6</b> 9	4B
3.9 Vp-p ( V )	5.0 Vp-p
48	69
· · ·	
5.0 Vp-p(V)	4.0 Vp-p
<b>⑤</b>	<b>②</b>
111	- T
4.2 Vp-p ( H )	. 4.8 Vp-p
<b>9</b>	<b>5</b>
•	
11.0 Vp-p ( V )	3.4 Vp-p
<b></b>	<b>6</b> 8
5.9 Vp-p ( V )	11.2 Vp-p
60	(i)
3.8 Vp-p ( H )	2.6 Vp-p (
63	@ L ı
170 Vp-p ( H )	18.0 Vp-p
69	<b>6</b>

2.4 Vp-p ( V )

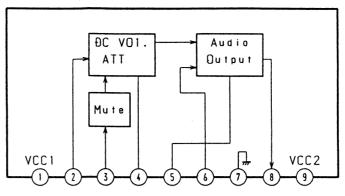
338 Vp-p (



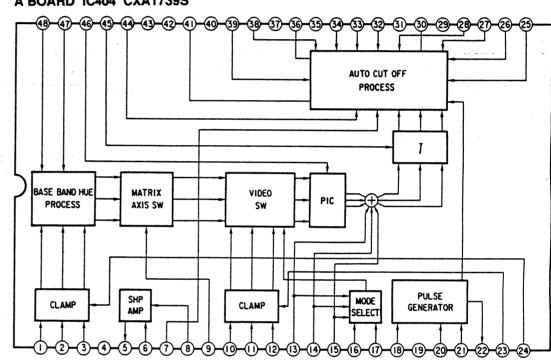
69



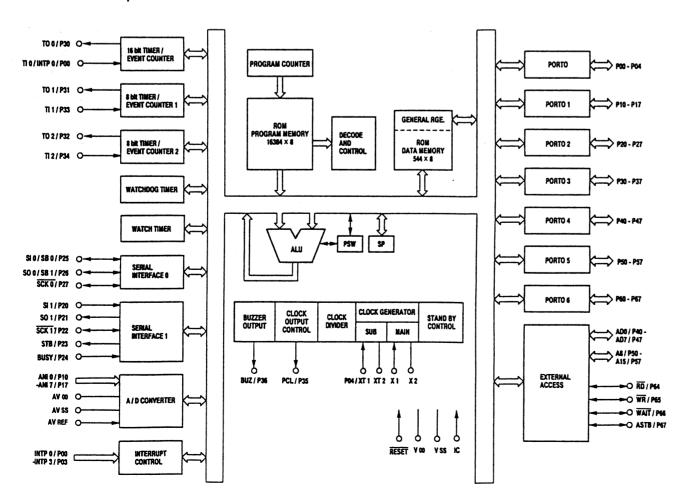
#### A BOARD IC200 AN5265

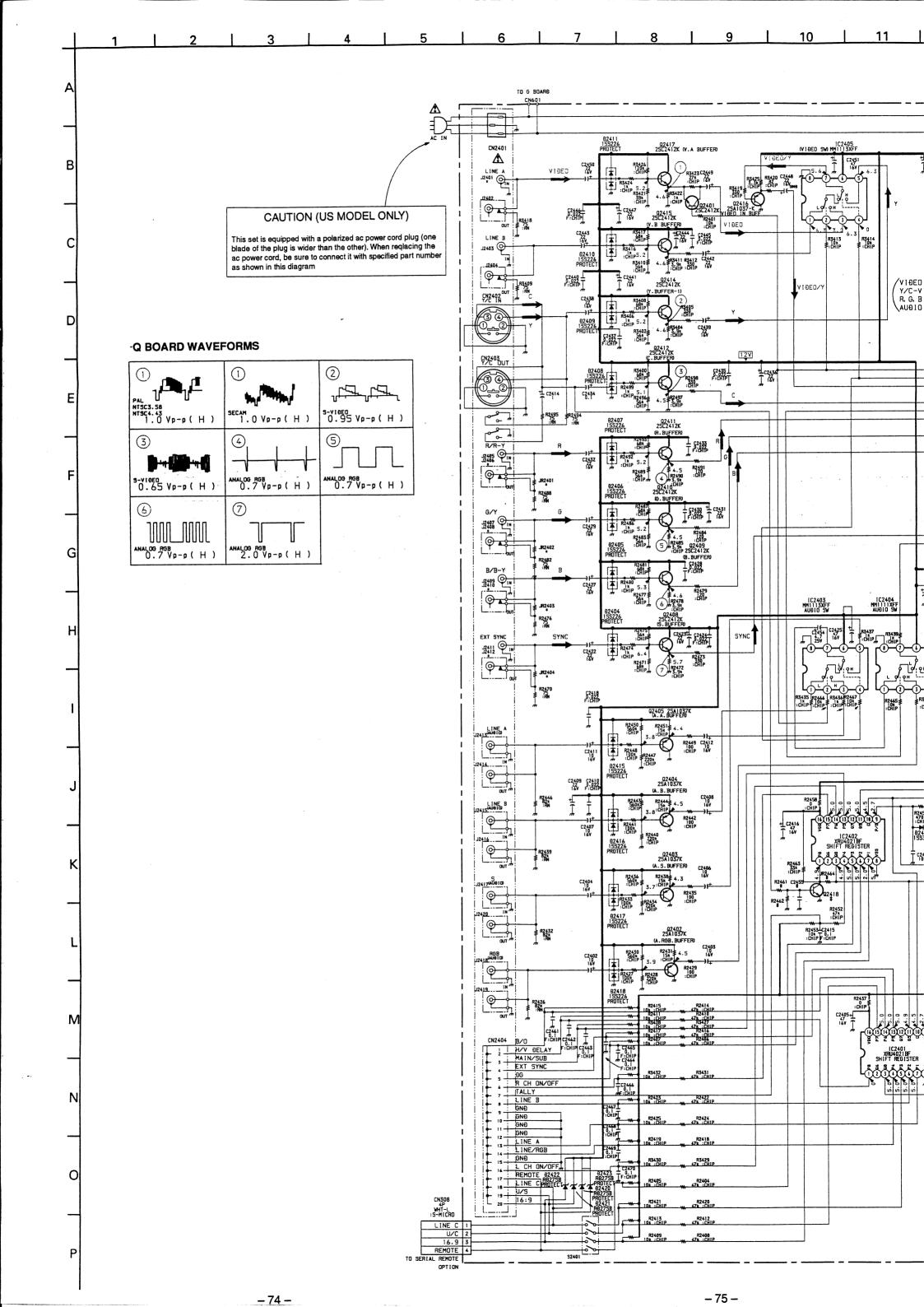


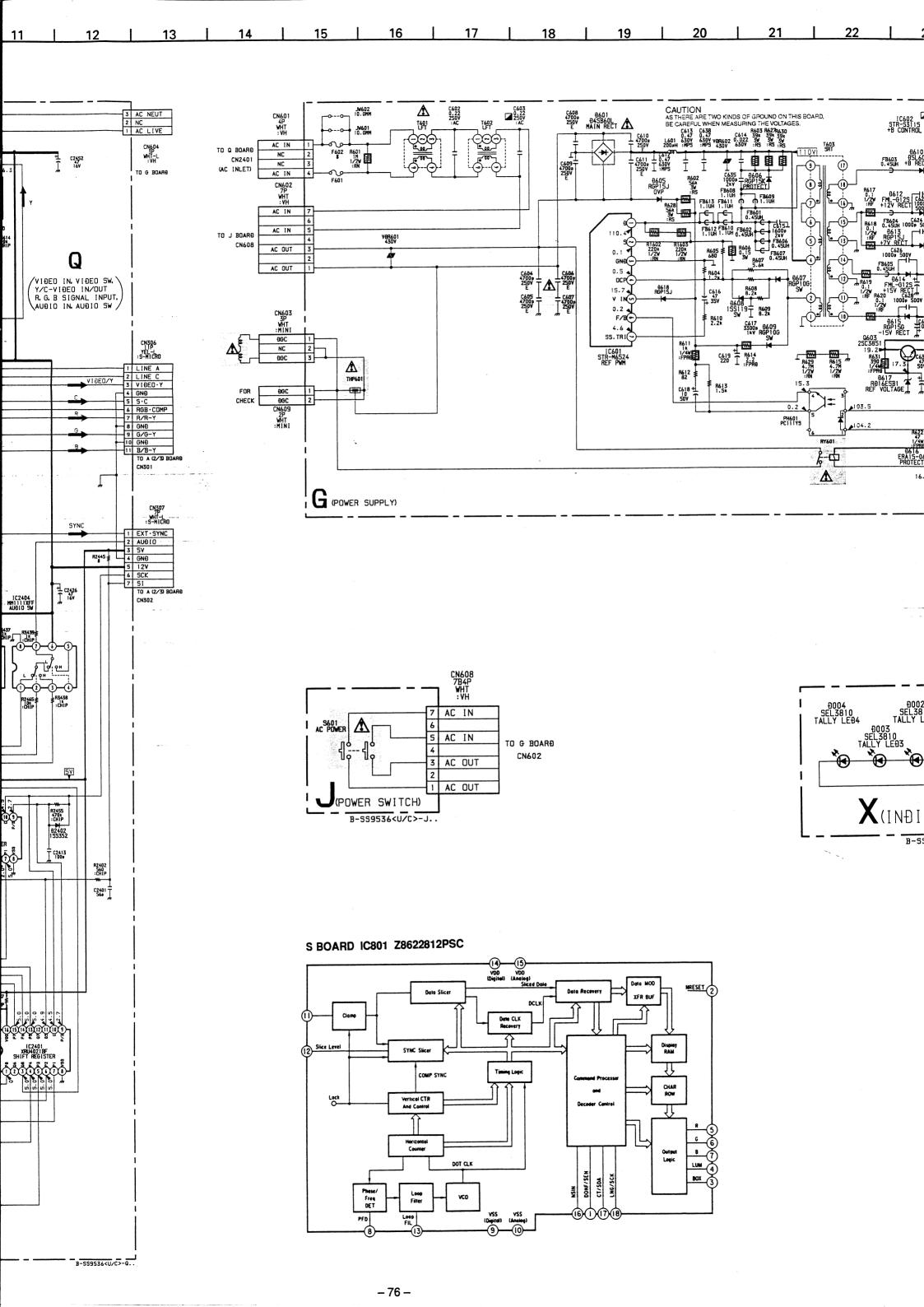
## A BOARD IC404 CXA1739S

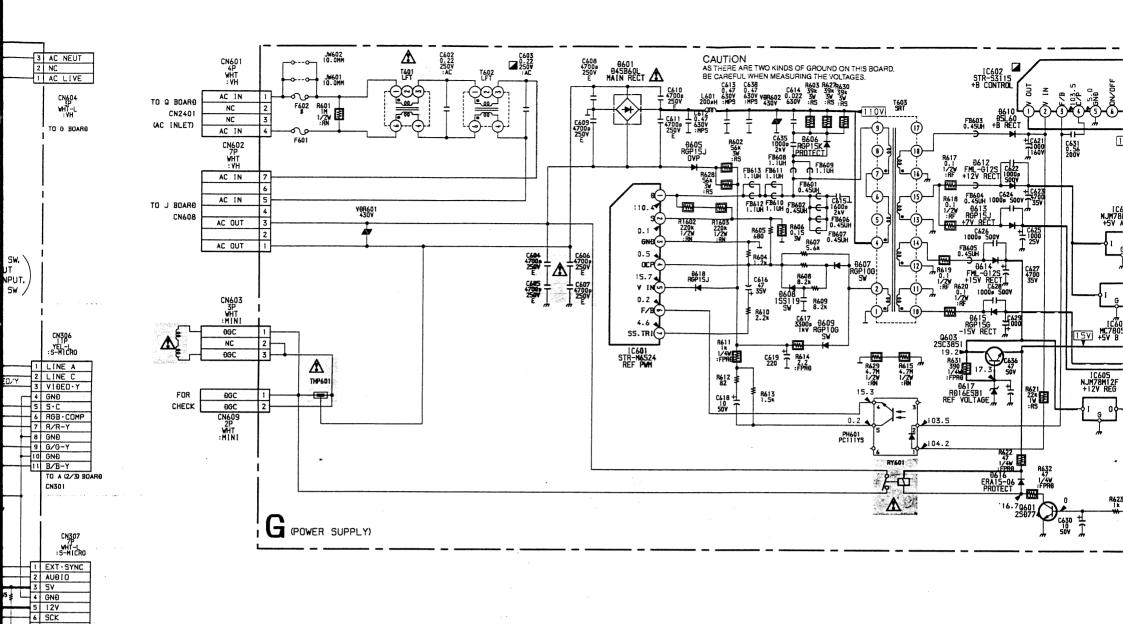


## A BOARD IC101 µPD78013YCW







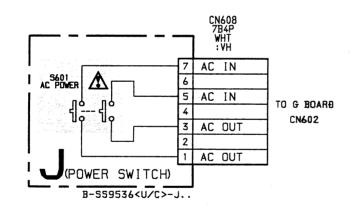


18

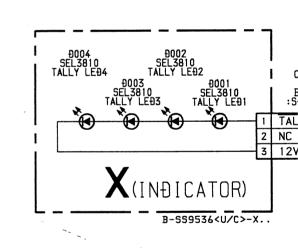
19

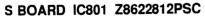
20

21



16

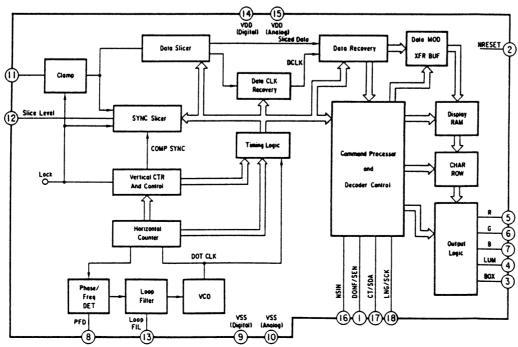


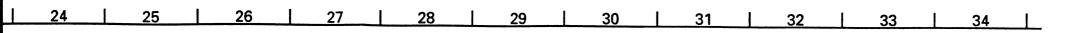


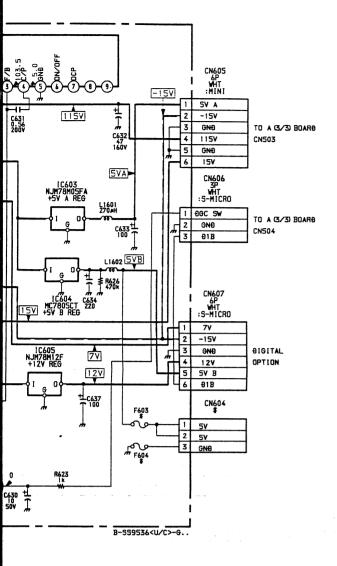
13

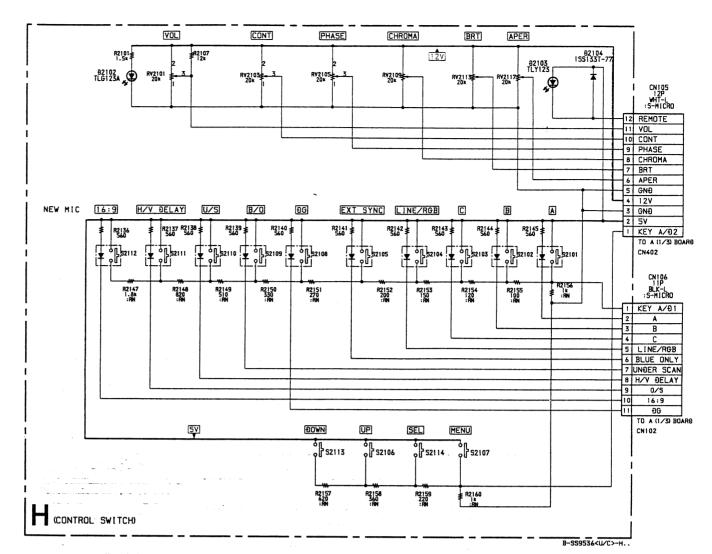
TO A (2/3) BOARD CN302

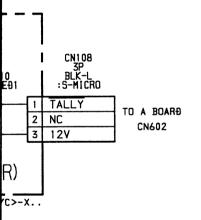
u/c>-a..

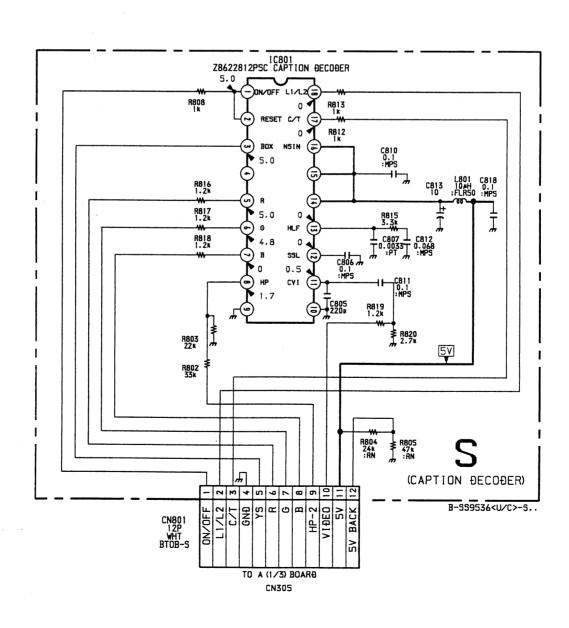






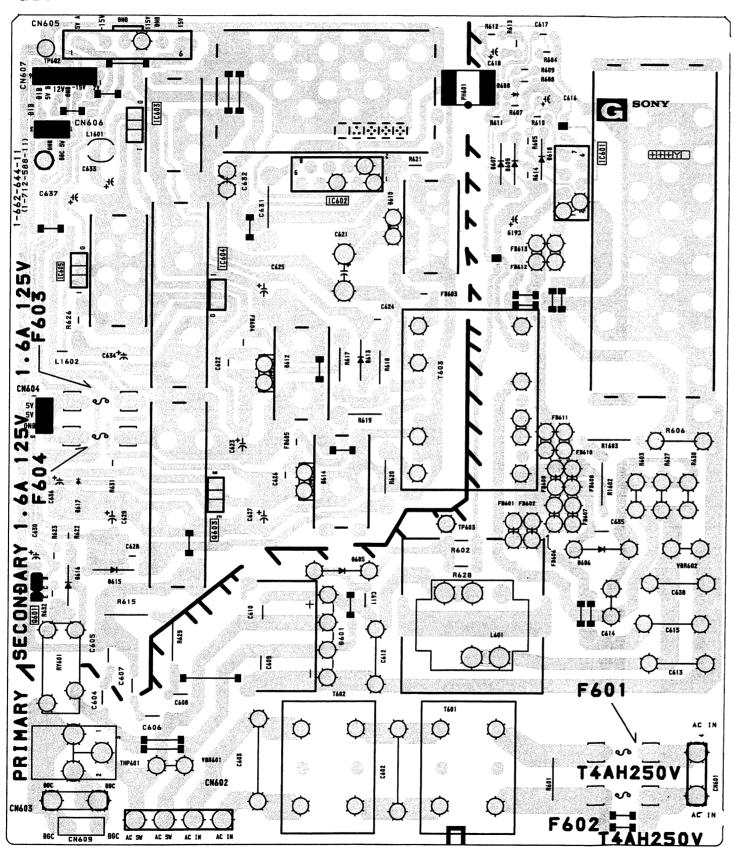




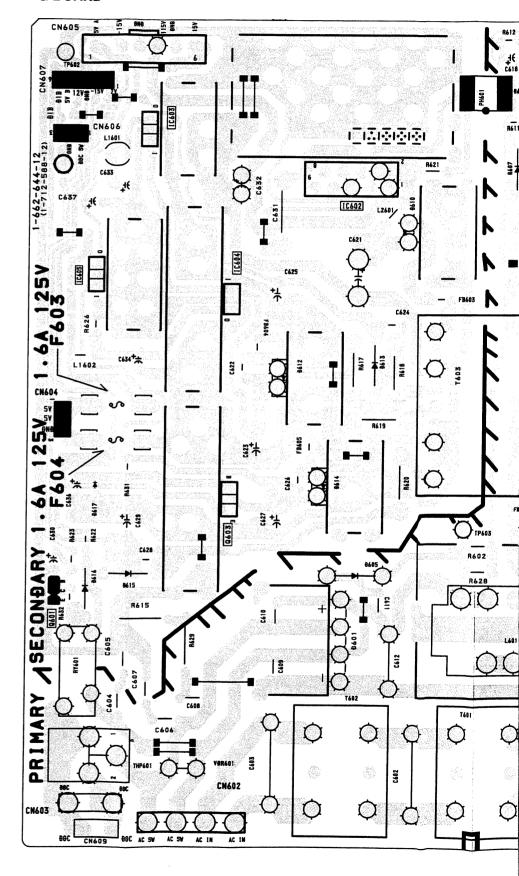




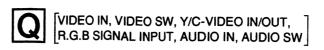
## -G BOARD-



## -G BOARD-









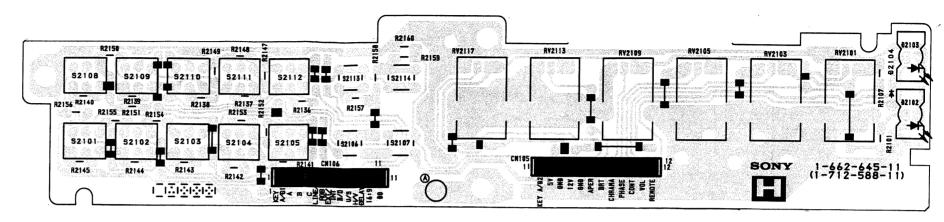




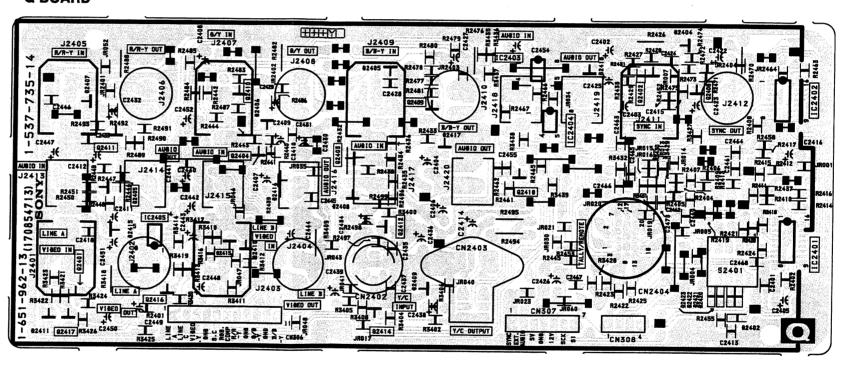
#### -H BOARD-

SONY

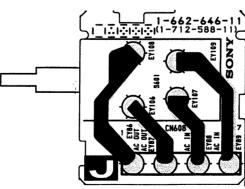
F601



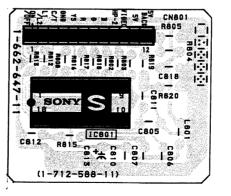
#### -Q BOARD-



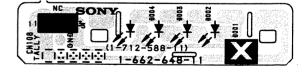
## -J BOARD-

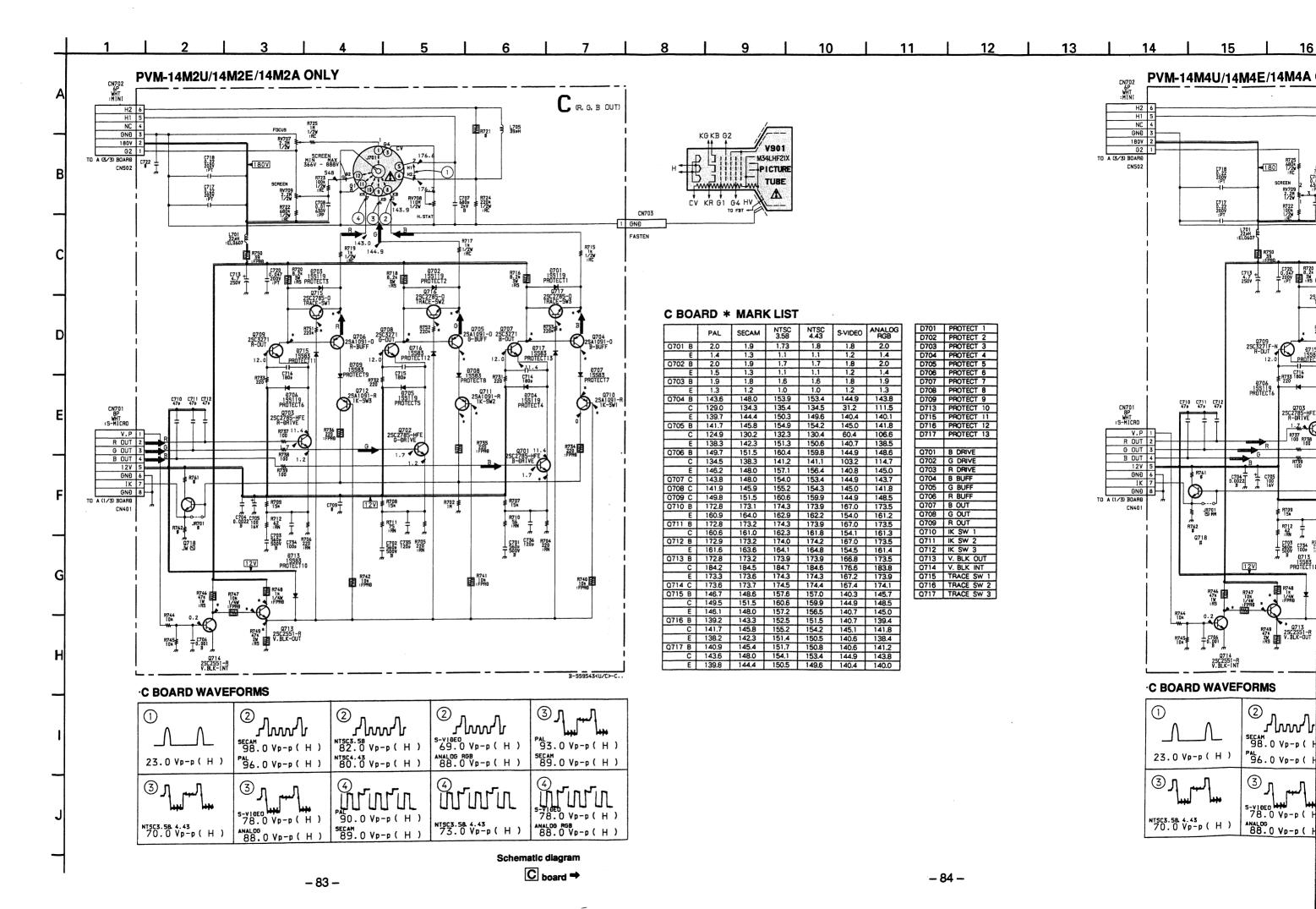


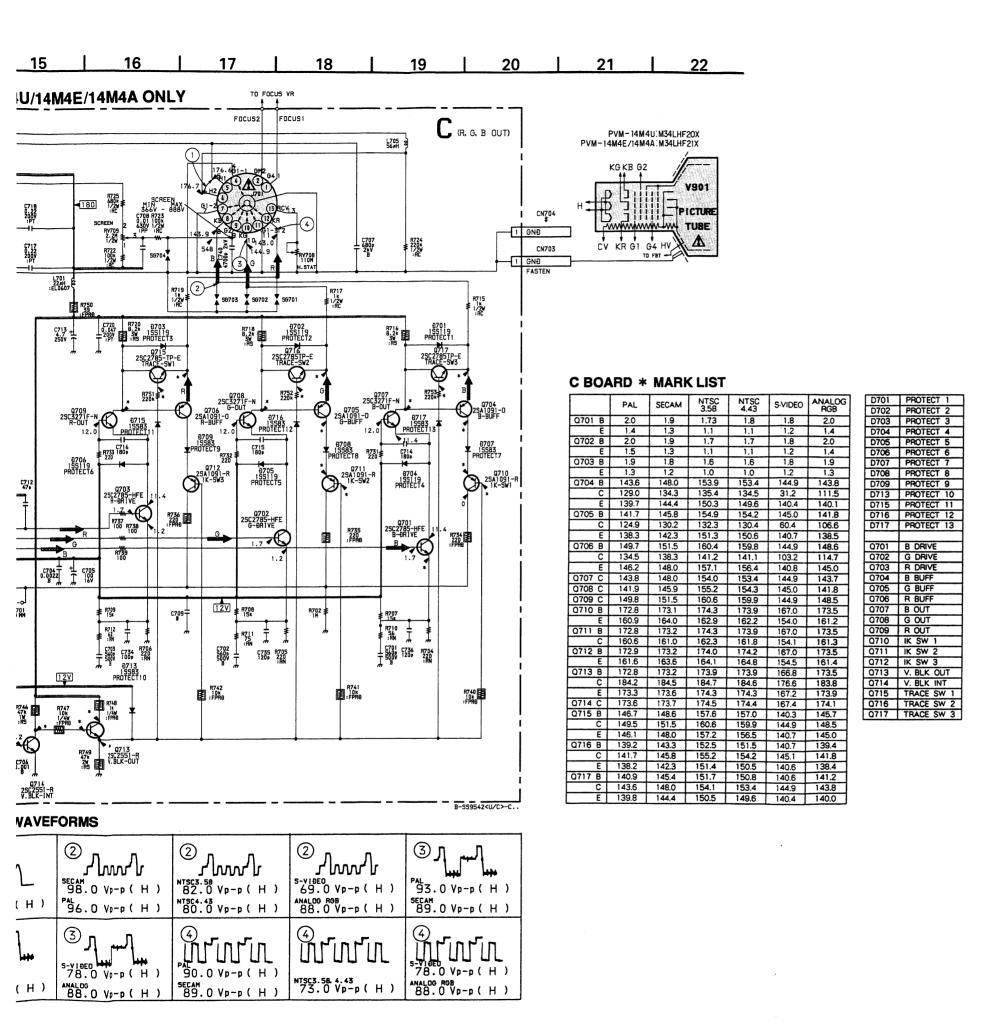
## -S BOARD-PVM-14M2U/14M4U ONLY



-X BOARD-



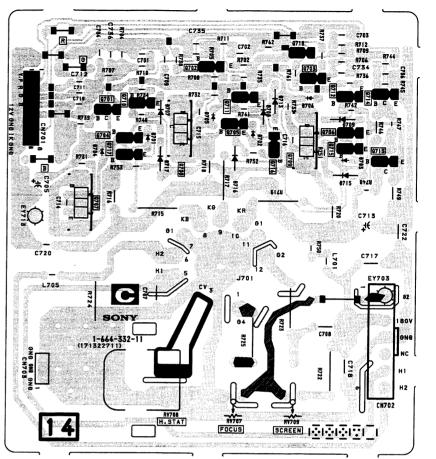




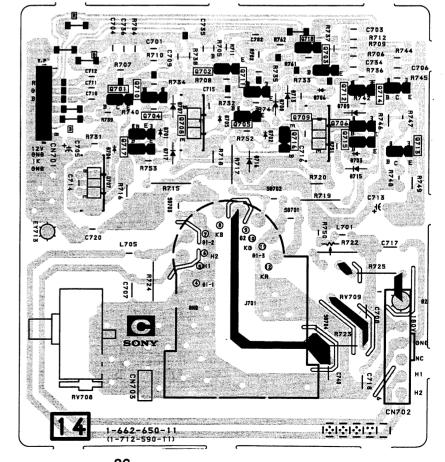
- 85 -

[R.G.B OUT]

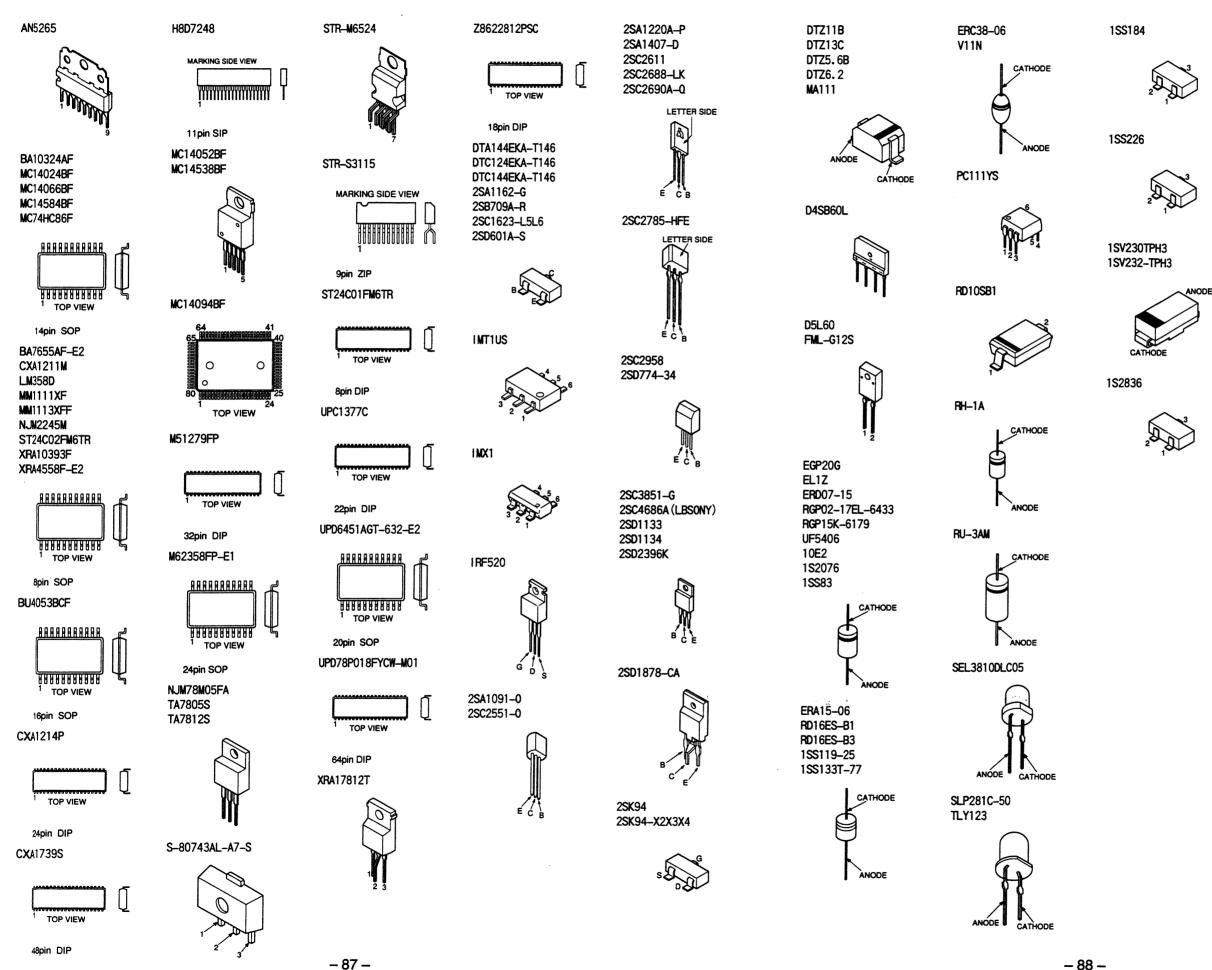
### -C BOARD- PVM-14M2U/14M2E/14M2A ONLY



## -C BOARD- PVM-14M4U/14M4E/14M4A ONLY



#### 6-5. SEMICONDUCTORS



## SECTION 7 EXPLODED VIEWS

#### NOTE:

 Items with no part number and no description are not stocked because they are seldom required for routine service.

#### 7-1. CHASSIS

- : 7-685-648-79 +BVTP 3X12 ■ : 7-682-661-01 +PS 4X8 ▲ : 7-685-646-79 +BVTP 3X8 ◆ : 7-685-663-79 +BVTP 4X16 ▼ : 7-685-881-09 +BVTT 4X8
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The componants identified by shading and mark ∆ are critical for safety.

Replace only with part number specified.

Les composants identifies par une trame et une marque Å sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

7-2. PICTURE TUBE

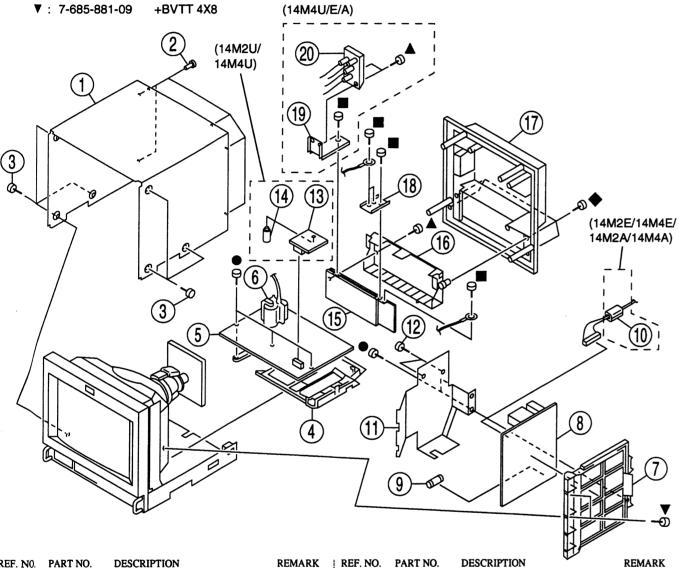
: 7-685-648-79: 7-682-563-09

+BVTP 3X12

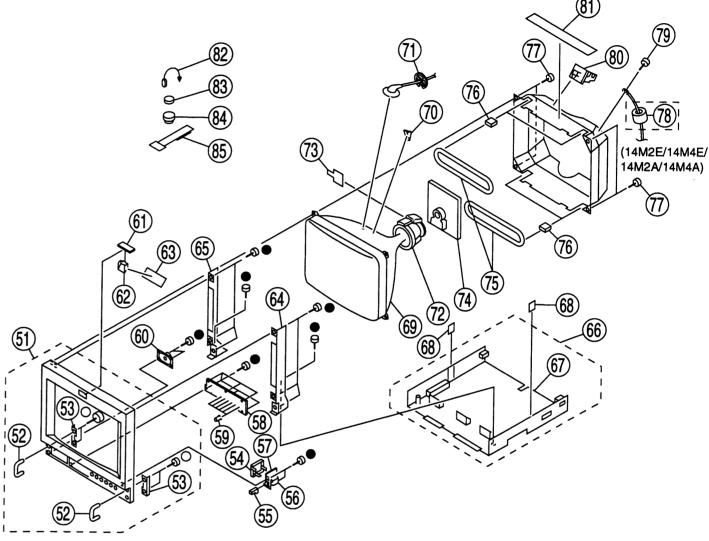
+B 4X12

The componants identified by shading and mark \(\Delta\) are critical for safety. Replace only with part number specified.

Les composants identifies par une trame et une marque \(\frac{\Lambda}{\text{sont}}\) critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



REF. I	NO. PART NO.	DESCRIPTION	REMARK	RE
1	X-0515-323-0	COVER ASSY, TOP		9
			J/14M4U/14M2E/14M4E)	10
	X-4034-350-1	COVER ASSY, TOP (14)	M2A/14M4A)	
2	4-391-825-01	RIVET, NYLON		11
3	4-847-802-11	SCREW (OS), CASE, CL	.AW	12
4	*4-043-690-01	BRACKET, MAIN		
			i i	13
5	* A-1298-002-A	A BOARD, COMPLETE	(14M4U/E/A)	14
	*A-1298-006-A	A BOARD, COMPLETE	(14M2U/E/A)	15
6		TRANSFORMER ASSY.		16
			(14M2U/E/A)	17
	A1-453-233-11	TRANSFORMER ASSY.	FLYBACK	
			(14M4U/E/A)	18
7	*4-043-689-01	BRACKET, G		19
•	. 0.0 007 01			20
8	* A-1316-302-A	G BOARD, COMPLETE		
-		C DOLLED, COMIL DELL	!	2000000



l I	32)—b		(55)				
REF. NO	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51 52	X-4034-351-1	BEZEL ASSY (14M2U/E/A) BEZEL ASSY (14M4U/E/A) HANDLE, PROTECTOR			8-738-333-05		(14M4E/A)
	<b>*</b> 4-043-679 <b>-</b> 01	REINFORCEMENT, HANDI COVER, AC SWITCH	Æ	70 :	3-703-961-01	PICTURE TUBE 14MG ( SPACER, DY HOLDER, HV CABLE	DARK) (14M2U/E/A)
55 <b>56</b> 4	4-043-683-01	BUTTOM, POWER SWITCH		72 A	1-451-457-11	DEFLECTION YOKE (1	
57	* A-1388-193-A	SWITCH, PUSH (A.C.POWE J BOARD, COMPLETE H BOARD, COMPLETE	K)	73	X-2105-533-1	DEFLECTION YOKE (I- PLATE ASSY, CORREC C BOARD, COMPLETE	TION. TLH
59 60	4-043-802-02 1-544-063-12	KNOB, CONTROL		74 *	4-1331-631-A	C BOARD, COMPLETE COIL, DEMAGNETIZAT	(14M2U/E/A)
61	* A-1390-704-A	X BOARD, COMPLETE REFLECTOR, LED			I-316-015-00 I-365-808-01	HOLDER, WIRE SCREW (5), TAPPING	
63	4-044-606-01	CUSHION, TALLY BRACKET ASSY (R), SIDE		78 1	-543-827-11	CLAMP, SLEEVE FERR	14M4E/14M2A/14M4A)
65 66	* A-1450-187-A X-4031-711-1	BRACKET ASSY (L), SIDE CABINET ASSY, BOTTOM	67		I-389-025-01 I-033-681-01	SCREW (M4) (EXT TOO HOLDER, LEAD	TH WASHER)
67 68	4-391-840-04 4-042-608-01	CABINET, BOTTOM NUT. PLATE		82 4	-308-870-00	CLOTH, PROTECTION CLIP, LEAD WIRE	
69 A	76-730-333-03	PICTURE TUBE 14MT3(L-B	VM, PVM) (14M4U)	84 1	-452-094-00	MAGNET, DISK; 10mmø MAGNET, ROTATABLE PIECE A(90), CONV. CO	DISK; 15mmø
							WILLO I

## SECTION 8 ELECTRICAL PARTS LIST



## NOTE:

Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ∆ are critical for safety.
Replace only with part number specified.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

## **RESISTORS**

- · All resistors are in ohms
- F : nonflammable
- CAPACITORS PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

							pies	ise include the bo	pard name.	•	
REF. NO.	PART NO.	DESCRIPTION		j	REMARK	REF. NO.	PART NO.	DESCRIPTION		Ī	REMARK
	* A-1298-002-A	A BOARD, CON				C201	1-137-353-11	MYLAR	0.047MF	10%	100V
	* A-1298-006-A	A BOARD, CON	MPLETE		4M4U/E/A)	C202 C203 C204	1-126-963-11 1-126-964-11	ELECT	0.0047MF 4.7MF 10MF	10% 20% 20%	50V 50V 50V
	4-382-854-11	PLATE (CF), SHI SCREW (M3X10)	ELD , P, SW (+)	,	4M2U/E/A)	C205 C206	1-126-767-11 1-128-526-11		1000MF 100MF	20% 20%	16V 25V
	7-682-948-01	SCREW +PSW 32	ζ8			C207 C208 C209	1-104-665-11 1-126-964-11 1-126-963-11	ELECT	100MF 10MF 4.7MF	20% 20% 20%	25V 50V 50V
DDE100	1 004 040 44	<band fii<="" pass="" td=""><td></td><td></td><td></td><td>C300 C301</td><td></td><td>CERAMIC CHIP CERAMIC CHIP</td><td></td><td>0.25PF</td><td>50V 50V</td></band>				C300 C301		CERAMIC CHIP CERAMIC CHIP		0.25PF	50V 50V
<b>BP</b> F400	1-236-363-11	FILTER, BAND P	ASS			C302 C304		CERAMIC CHIP CERAMIC CHIP		0.25PF 10%	50V 25V
		<capacitor></capacitor>				C305 C306	1-163-259-91	CERAMIC CHIP CERAMIC CHIP	220PF	5%	50V 50V
C105 C106 C114	1-163-251-11	CERAMIC CHIP	100PF	5% 5%	50V 50V	C309		CERAMIC CHIP			50V
C115 C116	1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.01MF		50V 50V 50V	C310 C311 C312		CERAMIC CHIP CERAMIC CHIP ELECT		10% 10% 20%	25V 25V 50V
C117 C118	1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.01MF	5%	50V 50V	C313 C314	1-163-145-00	CERAMIC CHIP CERAMIC CHIP	0.0015MF		50V 50V
C119 C121	1-165-319-11 1-163-237-11	CERAMIC CHIP CERAMIC CHIP	0.1MF 27PF	5%	50V 50V	C315 C316	1-126-964-11 1-104-664-11		10MF 47MF	20% 20%	50V 25V
C123 C124		CERAMIC CHIP		5%	50V 50V	C317 C318 C319	1-126-964-11	CERAMIC CHIP ELECT CERAMIC CHIP	10MF	5% 20%	50V 50V
C132 C133	1-163-141-00	CERAMIC CHIP CERAMIC CHIP	0.001MF	5% 5%	50V 50V	C320		CERAMIC CHIP		0.25PF	50V
C134 C135		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V	C322 C323 C324	1-163-119-00 1-163-231-11	CERAMIC CHIP CERAMIC CHIP	120PF 15PF	5% 5%	50V 50V
C136 C140	1-164-004-11	CERAMIC CHIP CERAMIC CHIP	0.1MF	5% 10%	50V 25V	C325	1-126-964-11	CERAMIC CHIP ELECT	10MF	5% 20%	50V 50V
C141 C142 C143	1-163-259-91	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	220PF	10% 5%	50V 50V 50V	C326 C327 C328	1-164-004-11 1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.1MF 0.01MF	10% 10%	25V 25V 50V
C144 C145		CERAMIC CHIP CERAMIC CHIP			50V 50V	C329 C330		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V
C154 C155 C156	1-163-037-11 1-163-023-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.022MF 0.015MF	10% 10% 10%	50V 50V 50V	C331 C332 C333	1-164-004-11 1-163-031-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1MF 0.01MF	5% 10%	50V 25V 50V
C157 C158		CERAMIC CHIP CERAMIC CHIP		10% 10%	50V 25V	C334 C335		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V
C159 C161 C162	1-104-664-11	CERAMIC CHIP ELECT CERAMIC CHIP	47MF	10% 20% 5%	25V 25V 50V	C336 C337 C338		ELECT CERAMIC CHIP CERAMIC CHIP		20%	25V 50V
C164 C165	1-165-319-11	CERAMIC CHIP	0.1MF	<i>5 10</i>	50V	C339 C340	1-163-231-11	CERAMIC CHIP CERAMIC CHIP	15PF	5% 5%	50V 50V 50V
C166 C167 C168		CERAMIC CHIP ELECT		10% 20% 20%	50V 25V 10V 10V	C341 C342 C343	1-163-018-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.0056MF	5% 10%	50V 50V 50V
C169 C171		CERAMIC CHIP CERAMIC CHIP		10% 5%	50V 50V	C344 C345	1-163-141-00	CERAMIC CHIP CERAMIC CHIP	0.001MF	5% 5%	50V 50V
C174 C200		CERAMIC CHIP		5% 20%	50V 50V	C346 C347	1-126-960-11 1-163-243-11	ELECT CERAMIC CHIP	1MF 47PF	20% 5%	50V 50V



REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION		F	REMARK
C348		CERAMIC CHIP		10%	25V	C420		CERAMIC CHIP		10%	25V
C349 C350		CERAMIC CHIP (		5% 5%	50V 50V	C421 C422	1-164-222-11 1-126-960-11	CERAMIC CHIP ELECT	0.22MF 1MF	20%	25V 50V
C351	1-104-664-11	ELECT .	47MF	20%	25V	C423 C424	1-163-809-11	CERAMIC CHIP		10%	25V
C352	1-163-031-11	CERAMIC CHIP	0.01MF	20%	50V		1-103-609-11	CERAMIC CHIP	U.04/MF	10%	25V
C353 C354		CERAMIC CHIP (		5%	50V 50V	C426 C427		CERAMIC CHIP CERAMIC CHIP		5%	50V 50V
C355	1-126-960-11		1MF	20%	50V	C428	1-104-661-91	ELECT	330MF	20%	16V
C356	1-126-963-11	ELECT	4.7MF	20%	50V	C429 C430	1-163-031-11 1-104-661-91	CERAMIC CHIP ELECT	0.01MF 330MF	20%	50V 16V
C357 C358		CERAMIC CHIP (			50V 50V			CERAMIC CHIP		2070	
C359	1-104-664-11	ELECT	47MF	20%	25V	C431 C432		CERAMIC CHIP		10%	50V 25V
C360	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	C433 C434		CERAMIC CHIP CERAMIC CHIP		5% 10%	50V 25V
C361		CERAMIC CHIP			50V	C435		CERAMIC CHIP		0.25PF	50V
C362 C363		CERAMIC CHIP (		5%	50V 50V	C436	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C364 C365	1-163-031-11 1-106-343-00	CERAMIC CHIP	0.01MF 0.001MF	10%	50V 100V	C437 C438	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
				10%		C436 C439		CERAMIC CHIP CERAMIC CHIP		10% 10%	25V 25V
C366 C367		CERAMIC CHIP (			50V 50V	C440	1-164-004-11	CERAMIC CHIP	0.1 <b>MF</b>	10%	25V
C368	1-124-261-00	ELECT	10MF	20%	50V	C441	1-126-962-11		3.3MF	20%	50V
C369 C370	1-104-298-11	CERAMIC CHIP (	0.15MF 47MF	10% 20%	25V 25V	C442 C443		CERAMIC CHIP CERAMIC CHIP		10% 5%	25V 50V
C371	1-104-664-11	FIECT	47MF	20%	25V	C444 C445	1-165-319-11	CERAMIC CHIP CERAMIC CHIP	0.1MF		50V
C372	1-163-031-11	CERAMIC CHIP	0.01MF		50V	•				10%	25V
C373 C374	1-163-141-00	CERAMIC CHIP (	0.001MF 1MF	5% 20%	50V 50V	C446 C447		CERAMIC CHIP CERAMIC CHIP		0.25PF 5%	50V 50V
C375		CERAMIC CHIP		5%	50V	C448	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C376	1-126-959-11	ELECT	0.47MF	20%	50V	C449 C450		CERAMIC CHIP CERAMIC CHIP		0.5PF 10%	50V 25V
C377 C378		CERAMIC CHIP (		10% 10%	25V 25V	C451	1 164 004 11	CERAMIC CHIP	0.11ME	100	2617
C379	1-163-031-11	CERAMIC CHIP	0.01MF		50V	C452	1-163-263-11	CERAMIC CHIP	330PF	10% 5%	25V 50V
C380	1-126-767-11	ELECT	1000MF	20%	16V	C453 C454		CERAMIC CHIP CERAMIC CHIP		10% 5%	25V 50V
C381		CERAMIC CHIP		e 07	50V	C455		CERAMIC CHIP		5%	50V
C382 C383	1-103-243-11	CERAMIC CHIP 4	47PF 47MF	5% 20%	50V 25V	C456	1-163-089-00	CERAMIC CHIP	6PF	0.25PF	50V
C384 C385	1-163-249-11 1-104-664-11	CERAMIC CHIP	82PF 47MF	5% 20%	50V 25V	C457 C458		CERAMIC CHIP CERAMIC CHIP		10%	25V
						C459	1-165-319-11	CERAMIC CHIP	0.1MF	5%	50V 50V
C386 C387	1-124-261-00 1-163-141-00	CERAMIC CHIP	10MF 0.001MF	20% 5%	50V 50V	C460	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C388 C389	1-124-261-00 1-104-664-11		10MF 47MF	20% 20%	50V 25V	C461 C462		CERAMIC CHIP		5%	50V
C390		CERAMIC CHIP		20% 5%	50V	C462 C463		CERAMIC CHIP CERAMIC CHIP		10% 10%	25V 25V
C391	1-104-664-11	ELECT 4	47MF	20%	25V	C464 C465		CERAMIC CHIP CERAMIC CHIP		10% 5%	25V 50V
C392 C393		CERAMIC CHIP ( CERAMIC CHIP (	0.15MF	10%	25V						
C394	1-104-664-11	ELECT	47MF	10% 20%	25V 25V	C466 C467		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V
C395	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	C469 C470	1-163-037-11	CERAMIC CHIP CERAMIC CHIP	0.022MF	10%	50V
C396 C397		CERAMIC CHIP		10%	25V	C471		CERAMIC CHIP		5% 5%	50V 50V
C398	1-104-664-11 1-104-664-11		47MF 47MF	20% 20%	25V 25V	C472	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C399 C400	1-104-664-11	ELECT CERAMIC CHIP	47MF	20% 10%	25V 25V	C473	1-163-031-11	CERAMIC CHIP	0.01MF		50V
				1076		C475 C476		CERAMIC CHIP CERAMIC CHIP			50V 50V
C401 C402	1-164-346-11 1-126-967-11	CERAMIC CHIP	1MF 47MF	20%	16V 50V	C477	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C403 C406	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	C478	1-126-964-11		10MF	20%	50V
C407	1-126-965-11 1-104-664-11		22MF 47MF	20% 20%	50V 25V	C479 C482	1-163-121-00 1-126-925-11	CERAMIC CHIP ELECT	150PF 470MF	5% 20%	50V 10V
C408	1-164-232-11	CERAMIC CHIP (	0.01MF	10%	50V	C483 C484	1-163-249-11	CERAMIC CHIP CERAMIC CHIP	82PF	5%	50V
C409	1-163-031-11	CERAMIC CHIP (	0.01MF		50V					5%	50V
C410 C411	1-126-965-11 1-164-004-11	ELECT CERAMIC CHIP (	22MF 0.1MF	20% 10%	50V 25V	C485 C486		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V
C414		CERAMIC CHIP			50V	C487	1-163-235-11	<b>CERAMIC CHIP</b>	22PF	5%	50V
C415	1-126-964-11		10MF	20%	50V	C490 C491		CERAMIC CHIP CERAMIC CHIP			25V 25V
C416 C417		CERAMIC CHIP ( CERAMIC CHIP (		10% 10%	50V 50V	C492		CERAMIC CHIP			25V
C418 C419		CERAMIC CHIP (	0.0033MF	10%	50V	C493	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
0	1-120-723-11	- LUBCI 4	470MF	20%	10 <b>V</b>	C494 C495	1-104-005-11	CERAMIC CHIP ELECT	0.47MF 10MF	20%	25V 50V

The componants identified by shading and mark ≜ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque  $\Lambda$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



REF. NO.	PART NO.	DESCRIPTION	***************************************	ļ	REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
C496 C497		CERAMIC CHIP		5% 10%	50V 50V	C565 C566 C567	1-126-960-11 1-137-150-11	MYLAR	1MF 0.01MF	20% 10%	50V 100V
C498 C499	1-126-961-11	ELECT	2.2MF	20%	50V		1-136-499-11		0.047MF	5%	50V
C500	1-164-004-11	CERAMIC CHIP	0.1MF	10%	50V 25V	C568 C569	1-126-960-11 1-131-351-00	ELECT TANTALUM	1MF 4.7MF	20% 10%	50V 25V
C501	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	C570 C571	1-126-767-11 1-164-232-11	ELECT CERAMIC CHIP	1000MF 0.01MF	20% 10%	16V 50V
C502 C503		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V	C572	1-104-709-11		4.7MF	0	160V
C504 C505	1-136-495-11		0.068MF	5% 5%	50V	C573	1-136-173-00		0.47MF	5%	50V
C506	1-126-959-11		0.47MF	20%	50V 50V	C575 C576	1-102-244-00		0.01MF 220PF	10%	50V 500V
C507	1-128-526-11		100MF	20%	25V	C577 C578	1-107-906-11 1-136-112-00		10MF 1.4MF	20% 5%	50V 200V
C508 C509	1-130-497-00 1-128-566-11		0.15MF 470MF	5% 20%	50V 100V	C579	1-107-910-11	ELECT	100MF	20%	50V
C511 C512	1-107-368-11 1-126-959-11		0.047MF 0.47MF	10% 20%	200V 50V	C580 C581	1-136-756-11 1-126-963-11	FILM	0.24MF 4.7MF	5% 20%	200V 50V
C513	1-124-261-00		10MF	20%	50V	C582	1-102-002-00	CERAMIC	680PF	10%	500V
	1-129-715-91		0.012MF	10%	630V	C583	1-136-828-11		1.8MF	5%	200V
C514 d	1-130-338-91	FILM	0.01MF	5%	4M4U/E/A) 630V	C584 C585	1-107-949-11 1-107-960-11		2.2MF 4.7MF	20% 20%	160V 250V
C515	1-163-809-11	CERAMIC CHIP	0.047MF	10%	1M2U/E/A) 25V	C586 C587	1-126-942-61 1-102-030-00		1000MF 330PF	20% 10%	25V 500V
C516	1-102-030-00	CERAMIC	330PF	10%	500V	C588	1-107-906-11		10MF	20%	50V
C517 C518	1-163-024-00 1-107-947-11	CERAMIC CHIP	0.018MF 220MF	10% 20%	50V 160V	C589 C590	1-102-030-00 1-107-903-11		330PF	10%	500V
C519 C520	1-163-017-00	CERAMIC CHIP CERAMIC CHIP	0.0047MF		50V 50V	C591	1-107-365-91	FILM	2.2MF 0.015MF	20% 10%	50V 200V
C521	1-162-114-00		0.0047MF	370	2KV	C592 C593	1-107-635-11 1-165-319-11	CERAMIC CHIP	4.7MF 0.1MF	20%	160V 50V
C522	1-126-768-11		2200MF	20%	16V	C594	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C523 C525 A	1-107-902-11 1-136-080-11		1MF 0.011MF	20% 3%	50V 2KV	C595 C596	1-107-889-11 1-104-665-11		220MF 100MF	20% 20%	25V 25V
C525 A	1-136-079-11	FILM	0.01MF	(14 3%	IM4U/E/A) 2KV	C597 C598	1-164-346-11	CERAMIC CHIP CERAMIC CHIP	1MF	20%	16V 16V
C526 A	.1-162-116-91	CERAMIC	680PF	(14 10%	IM2U/E/A) 2KV	C599	1-124-261-00		10MF	20%	50V
C527	1-162-134-11	***************************************	470PF	10%	2KV	C1300 C1301	1-104-664-11 1-104-664-11	ELECT	47MF 47MF	20%	25V
C529	1-107-901-11		0.47MF		1M2U/E/A) 50V	C1302	1-163-133-00	<b>CERAMIC CHIP</b>	470PF	20% 5%	25V 50V
C530 C531	1-104-666-11 1-104-664-11	ELECT	220MF	20%	25V	C1304	1-104-664-11		47MF	20%	25V
C532		CERAMIC CHIP	47MF 0.01MF	20%	25V 50V	C1305 C1306		<b>CERAMIC CHIP</b>		20%	25V 50V
C533	1-102-212-00		820PF	10%	500V	C1307 C1308	1-163-031-11 1-126-933-11	CERAMIC CHIP ELECT	0.01MF 100MF	20%	50V 10V
C534 C537	1-107-662-11 1-126-971-11	ELECT	22MF 470MF	20% 20%	250V 50V	C1309	1-163-257-11	CERAMIC CHIP	180PF	5%	50V
C538 C539	1-137-150-11 1-130-480-00		0.01MF 0.0056MF	10% 5%	100V 50V	C1310 C1311	1-163-031-11 1-104-664-11	CERAMIC CHIP	0.01MF 47MF	20%	50V 25V
C540	1-163-133-00	CERAMIC CHIP		5%	50V	C1312	1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.01MF	2010	50V
C541 C542	1-107-905-11 1-136-481-11	ELECT	4.7MF 0.0022MF	20%	50V 100V	C1314	1-104-664-11	ELECT CITY	47MF	20%	50V 25V
C543 C544	1-136-481-11	MYLAR	0.0022MF	10%	100V	C1315	1-104-664-11		47MF	20%	25V
	1-137-150-11		0.01MF	10%	100V	C1316 C1317	1-104-664-11		0.01MF 47MF	20%	50V 25V
C545 C546		<b>CERAMIC CHIP</b>		10% 5%	500V 50V	C1318 C1319	1-104-664-11 1-163-037-11	ELECT CERAMIC CHIP	47MF 0.022MF	20% 10%	25V 50V
C547 C548	1-163-251-11 1-102-212-00	CERAMIC CHIP CERAMIC	100PF 820PF	5% 10%	50V 500V	C1320	1-104-664-11		47MF	20%	25V
C549	1-107-906-11	ELECT	10MF	20%	50V	C1321 C1322	1-104-664-11 1-126-934-11	ELECT	47MF 220MF	20%	25V
C550 C551	1-107-905-11 1-106-375-12		4.7MF 0.022MF	20% 10%	50V 100V		1-163-031-11	CERAMIC CHIP	0.01MF	20%	16V 50V
C552	1-107-889-11	ELECT	220MF	20%	25V			CERAMIC CHIP			50V
C553	1-106-389-00		0.082MF		200V IM4U/E/A)	C1325 C1326	1-104-664-11		47MF	20%	50V 25V
C554	1-130-736-11		0.01MF	5%	50V	C1328	1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.01MF 0.01MF		50V 50V
C555 C556	1-126-964-11 1-126-964-11	ELECT	10MF 10MF	20% 20%	50V 50V	C1329	1-126-964-11	ELECT	10MF	20%	50V
C557 C558	1-106-381-12 1-126-960-11		0.039MF 1MF	10% 20%	100V 50V	C1330 C1331	1-163-031-11 1-104-664-11	CERAMIC CHIP	0.01MF 47MF	20%	50V 25V
C559	1-136-173-00		0.47MF	5%	50V	C1332 C1333	1-104-664-11 1-104-664-11	ELECT	47MF	20%	25V
C561 C564	1-136-159-00 1-126-964-11		0.033MF	5% 20%	50V			CERAMIC CHIP	47MF 10PF	20% 0.5PF	25V 50V
CJ04	1-120-704-11	LLECI	10MF	20%	50V						



REF. NO.	PART NO.	DESCRIPTION		Ī	REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
C1335 C1336	1-104-664-11 1-104-664-11		47MF 47MF	20% 20%	25V 25V	C1515	1-126-964-11	ELECT	10 <b>MF</b>	20%	50V
C1338 C1339 C1340	1-163-031-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.01MF		50V 50V 50V	C1516 C1517 C1518 C1520	1-128-526-11 1-107-909-11	ELECT	100MF 47MF	10% 20% 20%	50V 10V 16V
C1341 C1342	1-163-105-00	CERAMIC CHIP CERAMIC CHIP	33PF	5% 5%	50V 50V	C1520	1-162-129-00 1-163-243-11	CERAMIC CHIP	150PF 47PF	10% 5%	2KV 14M4U/E/A) 50V
C1343 C1344 C1345		CERAMIC CHIP		5% 0.25PF 20%	50V 50V 50V	C1524	1-107-910-11	ELECT	100MF	20%	50V
C1345	1-124-201-00		47MF	20%	30V 16V	C1525	1-162-114-00	CERAMIC	0.0047MF		14M4U/E/A) 2KV 14M4U/E/A)
C1347 C1348 C1349	1-163-031-11 1-163-127-00 1-163-117-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	270PF 100PF	5% 5%	50V 50V 50V	C1530 C1537	1-130-783-00		0.33MF	10%	50V 100V 14M4U/E/A)
C1350 C1351	1-104-232-11	CERAMIC CHIP	0.01MF 1MF	10% 20%	50V 50V	C1538 C2501	1-102-074-00	CERAMIC CHIP	0.001MF	10% 10%	50V
C1352 C1353 C1354 C1355	1-163-023-00 1-163-031-11 1-163-121-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.015MF 0.01MF 150PF	10% 5% 5%	50V 50V 50V 50V	C2502 C2510		<b>CERAMIC CHIP</b>		10% 5%	50V 50V 630V 14M2U/E/A)
C1356 C1357		CERAMIC CHIP		5% 20%	50V			<connector></connector>			
C1358 C1359 C1360				20% 20% 5% 10%	16V 16V 50V 50V	CN102 CN104	* 1-564-514-11 * 1-564-506-11	CONNECTOR, B PLUG, CONNEC PLUG, CONNEC CONNECTOR, B	TOR 11P TOR 3P		
C1362 C1363		CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V			PLUG, CONNEC		DUAK	D 12P
C1364 C1365 C1366		CERAMIC CHIP CERAMIC CHIP ELECT		5% 0.5PF 20%	50V 50V 25V	CN302	* 1-564-510-11 * 1-766-745-11	PLUG, CONNEC PLUG, CONNEC CONNECTOR, B PIN, CONNECTO	TOR 7P OARD TO	BOAR	D 12P
C1367 C1369	1-104-664-11 1-163-237-11	ELECT CERAMIC CHIP	47MF 27PF	20% 5%	25V 50V	CN401	* 1-564-511-11	PLUG, CONNEC	TOR 8P		
C1370 C1372 C1373	1-163-237-11 1-104-664-11 1-104-664-11		27PF 47MF 47MF	5% 20% 20%	50V 25V 25V	CN501 CN502	* 1-580-798-11 * 1-573-964-11	PLUG, CONNECTOR PI	N (DY) 6P OR (PC BO.	ARD) 6	SP
C1374 C1375	1-104-664-11 1-126-963-11		47MF 4.7MF	20% 20%	25V 50V			PIN, CONNECTO PLUG, CONNEC		AKD) d	P .
C1378 C1380 C1381	1-163-163-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	18PF	5% 5% 5%	50V 50V 50V	CN505 CN507 CN508	1-695-915-11	PLUG, CONNEC TAB (CONTACT PIN, CONNECTO	)		
C1382 C1383	1-126-933-11 1-104-664-11	ELECT	100MF 47MF	20% 20%	10V 25V					(,	14M4U/E/A)
C1384 C1385 C1386	1-163-031-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.01MF		25V 50V 50V	CP300	1-236-366-11	<composition< p=""> MODULE, TRAP</composition<>		BLOC	K>
C1387	1-163-031-11	CERAMIC CHIP	0.01 <b>MF</b>		50V	CP301 CP302	1-236-365-11 1-808-654-21	MODULE, TRAP	•		
C1388 C1393 C1400	1-163-251-11	CERAMIC CHIP	100PF	5% 5%	50V 50V	CP303	1-466-162-61	FILTER BLOCK,	COM (CF)	3-4)	
C1401	1-136-173-00	CERAMIC CHIP FILM	0.47MF	5%	50V 50V			<diode></diode>			
C1402 C1403	1-136-173-00		0.47MF	5%	50V 50V	D100 D101	8-719-800-76	DIODE MA111 DIODE 1SS226			
C1404 C1405 C1406	1-163-235-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	22PF	10% 5% 0.25PF	25V 50V 50V	D102 D103 D104	8-719-045-70	DIODE 1SS226 DIODE 1SV230T DIODE 1SS226	РН3		
C1407 C1408		CERAMIC CHIP CERAMIC CHIP		0.25PF 5%	50V 50V	D105 D107		DIODE 1SS226 DIODE 1SS226			
C1500 C1501 C1505	1-126-768-11 1-126-925-11 1-136-165-00	ELECT	2200MF 470MF 0.1MF	20% 20% 5%	16V 10V 50V	D108 D109 D111	8-719-104-34 8-719-801-78	DIODE 1S2836 DIODE 1SS184 DIODE DTZ6.2			
C1506 C1507	1-104-661-91 1-163-141-00	ELECT CERAMIC CHIP	330MF 0.001MF	20% 5%	16V 50V	D114 D115		DIODE MA111 DIODE DTZ6.2			
C1508 C1509 C1510	1-126-963-11 1-126-964-11 1-126-963-11	ELECT ELECT	4.7MF 10MF 4.7MF	20% 20% 20% 20%	50V 50V 50V	D116 D200 D300	8-719-404-49 8-719-977-46	DIODE MA111 DIODE DTZ13C DIODE 1SV232-7	грнз		
C1511 C1512	1-164-182-11 1-126-963-11	CERAMIC CHIP	0.0033MF 4.7MF	10% 20%	50V 50V	D301 D303		DIODE MA111 DIODE DTZ6.2			
C1513 C1514		CERAMIC CHIP		5%	50V 50V	D304 D305	8-719-801-78	DIODE 1SS184 DIODE 1SS226			



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D307 D308		DIODE MA111 DIODE MA111	,	D516 D517 D518	8-719-404-49	DIODE MA111 DIODE MA111 DIODE MA111	
D309 D310 D311 D313	8-719-404-49 8-719-104-34 8-719-045-70	DIODE MA111 DIODE 1S2836 DIODE 1SV230TPH3 DIODE 1SS184		D519 D520 D521 D522	8-719-404-49 8-719-801-78 8-719-404-49	DIODE MA111 DIODE 18S184 DIODE MA111	
D314 D315 D317 D320	8-719-404-49 8-719-404-49 8-719-404-49	DIODE MA111 DIODE MA111 DIODE MA111 DIODE MA111		D522 D523 D524 D525	8-719-920-76 8-719-200-02 8-719-200-02	DIODE DTZ6.2 DIODE 1S2076 DIODE 10E-2 DIODE 10E-2	
D322	8-719-404-49	DIODE MA111		D526 D527 D528	8-719-200-02	DIODE MA111 DIODE 10E-2 DIODE RH-1A	
D324 D325 D326 D327	8-719-801-78 8-719-045-70	DIODE 1SV230TPH3 DIODE 1SS184 DIODE 1SV230TPH3 DIODE 1S2836		D529 D530 D531 D532	8-719-300-76 8-719-977-32	DIODE 10E-2 DIODE RH-1A DIODE DTZ11B DIODE 1SS226	
D332 D333 D335	8-719-404-49	DIODE MA111 DIODE MA111 DIODE MA111		D533 D534	8-719-302-43	DIODE EL1Z DIODE MA111	
D336 D337 D338	8-719-404-49	DIODE MA111 DIODE MA111 DIODE MA111		D535 D536 D537 D538	8-719-404-49 8-719-800-76 8-719-800-76	DIODE MA111 DIODE 1SS226 DIODE 1SS226 DIODE 1SS226	
D339 D344 D345 D346	8-719-404-49 8-719-801-78 8-719-104-34	DIODE MA111 DIODE 1SS184 DIODE 1S2836 DIODE 1S2836		D539 D540 D541	8-719-920-76 8-719-404-49 8-719-801-78	DIODE 1S2076 DIODE MA111 DIODE 1SS184	
D347 D360 D361	1-216-295-91 1-216-295-91	DIODE 1S2836 CONDUCTOR, CHIP CONDUCTOR, CHIP		D542 D543 D544	8-719-404-49 8-719-404-49	DIODE MA111 DIODE MA111 DIODE MA111 (14M4U/E/A)	
D362 D363 D364	8-719-158-40	DIODE RD10SB1 DIODE RD10SB1 DIODE 1S2836		D545 D546 D547	8-719-901-19 8-719-404-49	DIODE MA111 (14M4U/E/A) DIODE V11N (14M4U/E/A) DIODE MA111	
D365 D381 D401 D404	8-719-404-49 8-719-404-49 8-719-404-49	DIODE MA111 DIODE MA111 DIODE MA111 DIODE 1SS226		D548	8-719-110-46	DIODE RD16ESB3 (14M4U/E/A) <delay line=""></delay>	
D405 D406 D407 D408	8-719-801-78 8-719-404-49 8-719-404-49	DIODE 1SS184 DIODE MA111 DIODE MA111 DIODE MA111		DL300 DL301 DL401	1-415-632-11	DELAY LINE, Y DELAY LINE, Y DELAY LINE	
<b>D4</b> 10	8-719-404-49	DIODE MA111				<ferrite bead=""></ferrite>	
D411 D414 D415 D416	8-719-801-78 8-719-801-78	DIODE MA111 DIODE 1SS184 DIODE 1SS184 DIODE 1SS184		FB501	1-410-396-41	FERRITE BEAD INDUCTOR 0.450	JH
D417		DIODE 188184		FT 200	1 004 645 11	<filter></filter>	
D418 D421 D422	8-719-404-49 8-719-404-49	DIODE 1SS184 DIODE MA111 DIODE MA111		FL300 FL401	1-236-547-11 1-236-364-11	FILTER, BAND PASS	
D423 D424		DIODE 1SS226 DIODE MA111				<ic></ic>	
D425 D427 D500 D501 D502	8-719-404-49 8-719-404-49 8-719-977-03	DIODE 1SS226 DIODE MA111 DIODE MA111 DIODE DTZ5.6B DIODE UF\$406		IC101 IC101 IC102 IC103 IC104	8-759-354-28 8-759-008-48	SOCKET, IC IC uPD78P018FYCW-M01 IC ST24C02FM6TR IC MC74HC86F IC uPD6451AGT-632-E2	
D503 D504 D505 D506 D507	8-719-404-49 8-719-901-83 8-719-028-72 8-719-033-83	DIODE MA111 DIODE 1SS83 DIODE RGP02-17EL-6433 DIODE ERD07-15 DIODE 1SS226		IC105 IC106 IC107 IC108 IC109	8-759-196-70 8-759-196-70 8-759-042-02	IC M62358FP-E1 IC M62358FP-E1 IC M62358FP-E1 IC S-80743AL-A7-S IC M62358FP-E1	
D508 D509 D510 D512 D513	8-719-800-76 8-719-404-49 8-719-302-43 8-719-979-80	DIODE 1SS226 DIODE MA111		IC110 IC111 IC112 IC200 IC301	8-759-009-22 8-759-354-27 8-759-420-04	IC M62358FP-E1 IC MC14094BF IC ST24C01FM6TR IC AN5265 IC CXA1211M	
D514 D515	8-719-971-20	DIODE ERC38-06 DIODE ERC38-06		IC302 IC303 IC304 IC305	8-759-932-67	IC LM358D IC CXA1214P IC BU4053BCF IC M51279FP	
					22.00		



Les composants identifies par une trame et une marque \(\hat{L}\) sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark  $\triangle$  are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION REMARK
IC306	8-759-711-32	IC NJM2245M		L314 L316		INDUCTOR CHIP 27UH INDUCTOR CHIP 27UH
IC309 IC310	8-759-932-67	IC NJM2245M IC BU4053BCF		L317 L319	1-410-090-41	INDUCTOR 18mH INDUCTOR 100UH
IC311 IC312 IC313	8-759-711-32	IC MC14066BF IC NJM2245M IC MM1113XFF		L320 L401		INDUCTOR 470UH INDUCTOR 47UH
IC314		IC MM1113XFF		L402 L403	1-410-216-31	INDUCTOR CHIP 100UH INDUCTOR CHIP 100UH
IC315 IC316	8-759-932-67	IC BU4053BCF IC MM1111XF		L404		INDUCTOR CHIP 100UH
IC317 IC318		IC MC14538BF IC MC14584BF		L405 L406		INDUCTOR 68UH INDUCTOR 68UH
IC320		IC MM1113XFF		L407 L408	1-408-413-00	INDUCTOR 22UH INDUCTOR 22UH
IC321 IC322	8-759-287-89	IC MM1113XFF IC MM1113XFF		L409		INDUCTOR CHIP 68UH
IC323 IC324		IC MM1113XFF IC MM1113XFF		L500 L501 L502	1-407-365-00	COIL (WITH CORE) 45UH COIL,CHOKE COIL,CHOKE
IC325 IC326		IC MM1113XFF IC BA10324AF		L503 L504	1-410-093-11	INDUCTOR 33mH INDUCTOR 18UH
IC327 IC350	8-759-008-67 8-759-100-96	IC MC14066BF IC uPC4558G2		L505	1-410-671-31	INDUCTOR 47UH
IC401		IC BA7655AF-E2		L506 L507	1-410-686-11	COIL, CHOKE 3.00mH (14M4U/E/A) INDUCTOR 1mH
IC402 IC403 IC404	8-759-008-67	IC CXA1211M IC MC14066BF IC CXA1739S		L508 L509		INDUCTOR 27UH COIL,DYNAMIC CONVERSION CHOKE
IC405 IC406		IC BU4053BCF		L511 L512 2		COIL(WITH CORE) COIL (WITH CORE) 45UH
IC407		IC MC14066BF		L513 L514	1-412-447-11	INDUCTOR 3.9mH COIL, DUST CORE
IC408 IC409	8-759-509-91	IC XRA10393F IC BA10324AF		L515	1-459-059-00	COIL, DUST CORE
IC410 IC411		IC MC14052BF IC MC14024BF		L516 L517		COIL, HORIZONTAL LINEARITY INDUCTOR 680UH
IC412 IC413		IC BU4053BCF IC BU4053BCF				<neon lamp=""></neon>
IC500 IC502	8-749-010-07	IC H8D7248 IC MC14538BF		NL500	1-519-526-11	LAMP, NEON
IC503		IC MC14538BF				
IC504 IC505 IC506	8-759-520-07	IC CXA1211M IC XRA17812T		0101	8 720 027 FO	<transistor></transistor>
IC508 IC508	8-759-100-60	IC MC14538BF IC uPC1377C IC CXA1211M		Q101 Q102 Q103	8-729-216-22	TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G
IC509		IC LM358D		Q104 Q105	8-729-907-26	TRANSISTOR IMX1 TRANSISTOR DTA144EKA-T146
IC510	8-759-009-51	IC MC14538BF		Q107		TRANSISTOR DTA144EKA-T146
		<chip conductor=""></chip>		Q108 Q109	8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S
JR302 JR307		CONDUCTOR, CHIP CONDUCTOR, CHIP		Q110 Q111		TRANSISTOR 2SD601A-S TRANSISTOR DTA144EKA-T146
JR310		CONDUCTOR, CHIP		Q112 Q113		TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S
,		<coil></coil>		Q114 Q200	8-729-140-96	TRANSISTOR 2SD601A-S TRANSISTOR 2SD774-34
L101 L102		INDUCTOR 33UH		Q201		TRANSISTOR 2SD601A-S
L104 L105	1-408-425-00	INDUCTOR 47UH INDUCTOR 220UH INDUCTOR 100UH		Q300 Q301 Q302	8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR 2SA1162-G
L300		INDUCTOR 47UH		Q303 Q305	8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S
L301 L302	1-412-008-31	INDUCTOR 15UH INDUCTOR CHIP 15UH		Q306		TRANSISTOR 2SD601A-S
L303 L304	1-412-008-31	INDUCTOR 39UH INDUCTOR CHIP 15UH		Q307 Q308	8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S
L305 L306		INDUCTOR CHIP 2.2UH INDUCTOR 39UH		Q309 Q310		TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R
L307 L308	1-408-411-00	INDUCTOR 15UH INDUCTOR 4.7UH		Q311 Q312		TRANSISTOR 2SB709A-R TRANSISTOR 2SD601A-S
L309 L311	1-410-470-11	INDUCTOR 10UH INDUCTOR 10UH		Q313 Q314	8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR DTA144EKA-T146
L312	1-412-011-31	INDUCTOR CHIP 27UH		Q315		TRANSISTOR 2SB709A-R
				•		



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q316 Q318 Q319 Q320 Q321	8-729-422-37 8-729-422-29 8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SB709A-R TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S		Q420 Q421 Q422 Q423 Q424	8-729-027-59 8-729-120-28 8-729-422-29	TRANSISTOR 2SB709A-R TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SC1623-L5L6 TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146	
Q322 Q323 Q324 Q325 Q326	8-729-027-59 8-729-027-59 8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S		Q425 Q426 Q428 Q429 Q430	8-729-027-59 8-729-422-37 8-729-422-37	TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R TRANSISTOR 2SD601A-S	
Q327 Q328 Q329 Q330 Q331	8-729-141-53 8-729-141-53 8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR 2SK94-X2X3X4 TRANSISTOR 2SK94-X2X3X4 TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R		Q431 Q432 Q433 Q434 Q435	8-729-422-29 8-729-027-59 8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146	
Q332 Q333 Q334 Q335 Q336	8-729-422-29 8-729-422-37 8-729-422-29	TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SB709A-R TRANSISTOR 2SD601A-S TRANSISTOR 2SK94-X4		Q436 Q437 Q438 Q439 Q440	8-729-027-59 8-729-422-29 8-729-216-22	TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SA1162-G TRANSISTOR 2SD601A-S	
Q337 Q338 Q339 Q341 Q342	8-729-120-28 8-729-422-37 8-729-920-39	TRANSISTOR 2SD601A-S TRANSISTOR 2SC1623-L5L6 TRANSISTOR 2SB709A-R TRANSISTOR IMT1US TRANSISTOR IMT1US		Q441 Q442 Q443 Q444 Q445	8-729-422-29 8-729-216-22 8-729-422-29	TRANSISTOR 2SK94-X2X3X4 TRANSISTOR 2SD601A-S TRANSISTOR 2SA1162-G TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146	i
Q343 Q345 Q346 Q347 Q348	8-729-422-29 8-729-422-29 8-729-027-59	TRANSISTOR IMT1US TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SB709A-R		Q446 Q447 Q448 Q449 Q500	8-729-027-59 8-729-027-59 8-729-027-59	TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SB709A-R	
Q349 Q350 Q351 Q352 Q353	8-729-422-37 8-729-422-29 8-729-422-29	TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S		Q501 Q502 Q505 Q506 Q507	8-729-119-80 8-729-422-29 8-729-422-29	TRANSISTOR 2SD1878-CA TRANSISTOR 2SC2688-LK TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S	
Q354 Q355 Q356 Q357 Q358	8-729-422-29 8-729-027-59 8-729-422-29	TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S		Q508 Q509 Q510 Q511 Q513	8-729-027-38 8-729-027-59 8-729-422-29	TRANSISTOR 2SB709A-R TRANSISTOR DTA144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SA1220A-P	
Q359 Q360 Q361 Q362 Q363	8-729-907-26 8-729-027-38 8-729-422-29	TRANSISTOR 2SB709A-R TRANSISTOR IMX1 TRANSISTOR DTA144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S		Q514 Q515 Q516 Q517 Q518	8-729-106-92 8-729-027-59 8-729-027-38	TRANSISTOR DTC124EK TRANSISTOR 2SC2690A-Q TRANSISTOR DTC144EKA-T146 TRANSISTOR DTA144EKA-T146 TRANSISTOR DTC144EKA-T146	•
Q364 Q366 Q367 Q368 Q369	8-729-422-37 8-729-422-37 8-729-422-37	TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R TRANSISTOR DTA144EKA-T146		Q519 Q520 Q522 Q523 Q524	8-729-021-82 8-729-422-29 8-729-422-29	TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD2396K TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S	
Q372 Q401 Q402 Q403 Q404	8-729-422-29 8-729-422-29 8-729-027-59	TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SD601A-S TRANSISTOR 2SD601A-S TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SB709A-R		Q525 Q526 Q527	8-729-020-07	TRANSISTOR 2SC4686A(LBSON	(14M4U/E/A)
Q405 Q406	8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR 2SD601A-S		Q528 Q529		TRANSISTOR 2SA1407-D TRANSISTOR DTC144EKA-T146	•
Q407 Q408 Q409	8-729-422-29 8-729-422-37	TRANSISTOR 2SD601A-S TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R		Q530 Q531 Q532	8-729-216-22	TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SA1162-G (14M4 TRANSISTOR IRF520 (14M4U/E/	U/E/A)
Q410 Q411 Q412	8-729-422-29	TRANSISTOR IMX1 TRANSISTOR 2SD601A-S TRANSISTOR 2SA1162-G				<resistor></resistor>	
Q413 Q414	8-729-141-53	TRANSISTOR 2SK94-X2X3X4 TRANSISTOR 2SB709A-R		R101 R102	1-216-025-91	METAL GLAZE 100 5% METAL GLAZE 100 5%	1/10W 1/10W
Q415 Q416	8-729-422-37	TRANSISTOR 2SB709A-R		R103 R104 R105	1-216-073-00	METAL GLAZE 100 5% METAL GLAZE 10K 5% METAL GLAZE 2.7K 5%	1/10W 1/10W 1/10W
Q417 Q418 Q419	8-729-120-28	TRANSISTOR 2SB709A-R TRANSISTOR 2SC1623-L5L6 TRANSISTOR 2SB709A-R		R106 R107		METAL GLAZE 4.7K 5% METAL GLAZE 4.7K 5%	1/10W 1/10W



REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REN	MARK
R108	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	R315	1-216-000-00	METAL GLAZE 1	120¥ 5	% 1/	/10W
R109		METAL GLAZE 4.7K	5%	1/10W	R316		METAL GLAZE I			/10W
R110	1-216-073-00	METAL GLAZE 10K	5%	1/10 <b>W</b>	R317		METAL GLAZE 2		% 1/	/10W
R113	1-216-085-00	METAL GLAZE 33K	5%	1/10W	R318	1-216-049-91	METAL GLAZE 1	IK 5	% 1 <i>i</i>	/10W
R117		METAL GLAZE 10K	5%	1/10W	R319	1-216-067-00	METAL GLAZE 5	5.6K 5	<b>%</b> 1/	/10W
R119		METAL GLAZE 10K	5%	1/10W	R320	1-216-057-00	METAL GLAZE 2	2.2K 5		/10W
R124 R130		CONDUCTOR, CHIP METAL GLAZE 120K	5%	1/10W	R321 R322		METAL GLAZE 1			/10W
KIJU	1-210-099-00	METAL OLAZE 120K	370	1/10 W	R323		METAL GLAZE 2 METAL GLAZE 3			/10W /10W
R132		METAL GLAZE 4.7K	5%	1/10W	1					
R133 R134		METAL GLAZE 56K METAL GLAZE 4.7K	5% 5%	1/10W 1/10W	R324 R325		METAL GLAZE 1 METAL GLAZE 3			/10W
R135		METAL GLAZE 33K	5%	1/10W	R326		METAL GLAZE 3			/10W /10W
R137	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	R328	1-216-121-91	METAL GLAZE 1	IM 5	% 1/	/10 <b>W</b>
R140	1-216-033-00	METAL GLAZE 220	5%	1/10W	R329	1-216-055-00	METAL GLAZE 1	1.8K 5	<b>%</b> 1/	/10 <b>W</b>
R141		METAL GLAZE 33K	5%	1/10W	R330	1-216-089-91	METAL GLAZE 4	47K 5	% 1/	/10W
R144		CONDUCTOR, CHIP	-~	1 /1 0111	R331		METAL GLAZE 6		<b>%</b> 1/	/10W
R149 R151		METAL GLAZE 4.7K METAL GLAZE 3.3K	5% 5%	1/10W 1/10W	R332 R333		METAL GLAZE 1 METAL GLAZE 1			/10W /10W
	1210 001 00	METAL COALL 5.5K	570	1/1011	R334		METAL GLAZE 1			/10W /10W
R154		METAL GLAZE 4.7K	5%	1/10W	2005					
R155 R157		METAL GLAZE 27K METAL GLAZE 4.7K	5% 5%	1/10W 1/10W	R335 R336		METAL GLAZE 2 METAL GLAZE 4			/10W /10W
R158		CONDUCTOR, CHIP	570	1/10 11	R337		METAL GLAZE 1			/10W /10W
R159	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W	R338		METAL GLAZE 5	56K 5	% 1/	/10W
R160	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W	R339	1-216-071-00	METAL GLAZE 8	3.2K 5	% 1/	/10W
R162		METAL GLAZE 4.7K	5%	1/10W	R340	1-216-089-91	METAL GLAZE 4	47K 5	% 1/	/10W
R163		METAL GLAZE 4.7K	5%	1/10W	R341	1-216-673-11	METAL CHIP 8	3.2K 0.	.50% 1/	/10W
R164 R165		METAL GLAZE 5.6K CONDUCTOR, CHIP	5%	1/10W	R342 R343		METAL GLAZE 4 METAL GLAZE 8	-		/10W
11105	1 210 205-01	CONDUCTOR, CIM			R344		METAL GLAZE 6			/10W /10W
R167		METAL GLAZE 3.3K	5%	1/10W	2015					
R168 R169		METAL GLAZE 33K METAL GLAZE 270K	5% 5%	1/10W 1/10W	R345 R346		METAL GLAZE 3 METAL GLAZE 2			/10W /10W
R171		METAL GLAZE 180	5%	1/10W	R347		METAL GLAZE 2			/10W /10W
R172	1-216-295-91	CONDUCTOR, CHIP			R348		METAL GLAZE 1	180 5	% 1/	/10W
R177	1-216-214-00	METAL GLAZE 4.7K	5%	1/8W	R349	1-216-694-11	METAL CHIP 6	52K 0.	.50% 1/	/10W
R181		METAL GLAZE 4.7K	5%	1/10W	R350	1-216-085-00	METAL GLAZE 3	33K 5	% 1/	/10W
R184		METAL CHIP 820	0.50%		R351		METAL GLAZE 3	3.3K 5	% 1/	/10W
R185 R187		METAL GLAZE 10K METAL GLAZE 3.3K	5% 5%	1/10W 1/10W	R352 R353		METAL CHIP 1 METAL GLAZE 1			/10W /10W
					R354		METAL GLAZE 1			/10W
R189 R190		METAL GLAZE 10K METAL GLAZE 1K	5% 5%	1/10W 1/10W	D255	1 216 050 00	METAL CLASE A		~ .	
R192		METAL GLAZE 18 METAL GLAZE 10K	5%	1/10W	R355 R356		METAL GLAZE 2 METAL GLAZE 3			/10W /10W
R195		METAL GLAZE 8.2K	5%	1/10W	R357	1-216-121-91	METAL GLAZE 1	M 5		/10W
R197	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W	R358 R359		METAL GLAZE 1 METAL GLAZE 4			/10W
R199	1-216-295-91	CONDUCTOR, CHIP			K339	1-210-003-00	MIETAL GLAZE 4	•./K 3'	% 1/	/10 <b>W</b>
R200		METAL CHIP 30K	0.50%		R360	1-216-039-00	METAL GLAZE 3			/10W
R201 R202	1-216-049-91	METAL GLAZE 1K FUSIBLE 10	5% 5%	1/10W 1/4W F	R361 R362		METAL GLAZE 4 METAL GLAZE 5			/10W
R203	1-260-095-11		5%	1/2W	R363		METAL GLAZE 3			/10W /10W
D204	1 060 070 11	CARRON 47	<b>.</b>	1.0111	R364	1-216-113-00	METAL GLAZE 4	170K 5		/10W
R204 R205	1-260-072-11 1-216-647-11	CARBON 4.7 METAL CHIP 680	5% 0.50%	1/2W 1/10W	R366	1-216-065-00	METAL GLAZE 4	1.7K 5	0% 1 A	/10W
R206	1-216-073-00	METAL GLAZE 10K	5%	1/10W	R367		METAL GLAZE 1			/10W
R207 R208		METAL GLAZE 4.7K	5%	1/10W	R368		METAL GLAZE 1		% 1/	/10W
R200	1-210-003-00	METAL GLAZE 4.7K	5%	1/10W	R371 R372		METAL GLAZE 6 METAL GLAZE 1			/10W /10W
R209		METAL GLAZE 10K	5%	1/10W						
R210 R211	1-216-061-00 1-249-393-11	METAL GLAZE 3.3K CARBON 10	5% 5%	1/10W 1/4W F	R373 R374					/10W
R237		METAL GLAZE 47K	5%	1/10W	R375		METAL CHIP 6 METAL GLAZE 1			/10W /10W
R301		METAL GLAZE 100	5%	1/10W	R376	1-216-111-91	<b>METAL GLAZE 3</b>	390K 5		10W
R302	1.216.025.01	METAL GLAZE 100	5%	1/10W	R378	1-216-114-00	METAL GLAZE 5	510K 59	% 1/	/10W
R303	1-216-025-91	METAL GLAZE 100 METAL GLAZE 100	5%	1/10W 1/10W	R379	1-216-069-00	METAL GLAZE 6	5.8K 5°	% 1/	/10W
R304	1-216-025-91	METAL GLAZE 100	5%	1/10W	R380	1-216-065-00	<b>METAL GLAZE 4</b>	1.7K 59	<b>%</b> 1/	/10W
R305 R306		CONDUCTOR, CHIP CONDUCTOR, CHIP			R381 R382		METAL GLAZE 3 METAL GLAZE 1			/10W
		•			R383		METAL GLAZE 1			/10W /10W
R307		METAL GLAZE 560K	5%	1/10W						
R308 R311		METAL GLAZE 4.7K METAL GLAZE 1.8K	5% 5%	1/10W 1/10W	R384 R385		METAL GLAZE 1 METAL GLAZE 4			/10W
R312	1-216-073-00	METAL GLAZE 10K	5%	1/10W	R386		METAL GLAZE 5			/10W /10W
R313	1-216-648-11	METAL CHIP 750	0.50%	1/10W	R387	1-216-029-00	METAL GLAZE 1	50 59	% 1/	10W
R314	1-216-099-00	METAL GLAZE 120K	5%	1/10W	R388	1-210-039-00	METAL GLAZE 3	190 5°	% 1/	10W



REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		P	REMARK	
R389 R390 R391	1-249-393-11		20 0.50% 0 5% 70K 5%	1/10W 1/4W F 1/10W	R464 R465 R466	1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE	100	5% 5% 5%	1/10W 1/10W 1/10W	
R393 R394		METAL GLAZE 1 METAL GLAZE 2		1/10W 1/10W	R467 R468	1-216-121-91	METAL GLAZE METAL GLAZE	1 <b>M</b>	5% 5%	1/10W 1/10W	
R395 R396	1-216-113-00	METAL GLAZE 4		1/10W 1/10W	R469 R470	1-216-063-91 1-216-069-00	METAL GLAZE METAL GLAZE	3.9K 6.8K	5% 5%	1/10W 1/10W	
R397 R398 R399	1-216-105-91	METAL GLAZE 2 METAL GLAZE 3	20K 5%	1/10W 1/10W 1/10W	R471 R472		METAL GLAZE		5% 5%	1/10W 1/10W	
R400		METAL GLAZE 4		1/10W	R473 R474	1-216-121-91	METAL GLAZE METAL CHIP		5% 0.50%	1/10W 1/10W 1/10W	
R401 R402	1-216-053-00	METAL GLAZE 1 METAL GLAZE 1	.5K 5%	1/10W 1/10W	R475 R476	1-216-025-91	METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	
R403 R404		METAL GLAZE 6 METAL GLAZE 1		1/10W 1/10W	R477 R478		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	
R406 R407		METAL GLAZE 2 METAL GLAZE 1		1/10W 1/10W	R479 R480	1-216-085-00	METAL GLAZE METAL GLAZE	33K	5% 5%	1/10W 1/10W 1/10W	
<b>R4</b> 07	1-216-085-00	METAL GLAZE 3	3K 5%	4M2U/E/A) 1/10W	R481		METAL GLAZE		5%	1/10W	
R408 R410		METAL CHIP 39 METAL GLAZE 6	9K 0.50%	4M4U/E/A) 1/10W 1/10W	R482 R483 R484	1-216-025-91	METAL GLAZE METAL GLAZE METAL CHIP		5% 5% 0.50%	1/10W 1/10W 1/10W	
R411	1-216-033-00	METAL GLAZE 2	20 5%	1/10W	R485 R486	1-216-033-00	METAL GLAZE METAL CHIP		5% 0.50%	1/10W 1/10W 1/10W	
R412 R413 R414	1-216-668-11		.1K 0.50%	1/10W 1/10W	R487		METAL CHIP	1.2K	0.50%	1/10W	
R414		METAL CHIP 3: METAL GLAZE 4		1/10W 4M2U/E/A) 1/10W	R488 R489 R490	1-216-077-00	METAL GLAZE METAL GLAZE METAL GLAZE	15K	5% 5% 5%	1/10W 1/10W 1/10W	
R417	1-216-665-11	METAL CHIP 3.	.9K 0.50%	1/10W	R491		METAL GLAZE		5%	1/10W	
R418 R419 R420	1-216-065-00	METAL CHIP 4. METAL GLAZE 4. METAL GLAZE 3:		1/10W 1/10W 1/10W	R492 R493 R494	1-216-295-91	METAL GLAZE CONDUCTOR, C	HIP	5%	1/10W	
R422		METAL GLAZE 1		1/10W	R495 R496	1-216-651-11	METAL CHIP METAL CHIP METAL GLAZE	75K 1K 10K	0.50% 0.50% 5%	1/10W 1/10W 1/10W	
R423 R424 R425	1-216-033-00	METAL GLAZE 1	20 5%	1/10W 1/10W	R497	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R425 R426 R427	1-216-039-00	METAL GLAZE 3 METAL GLAZE 3 METAL GLAZE 2	90 5%	1/10W 1/10W 1/10W	R498 R499 R500	1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE	220	5% 5% 5%	1/10W 1/10W 1/10W	
R428	1-216-097-91	METAL GLAZE 1	00K 5%	1/10W	R501	1-216-077-00	METAL GLAZE		5%	1/10W	
R429 R430 R431	1-216-119-00	METAL GLAZE 19	20K 5%	1/10W 1/10W	R502 R503	1-216-677-11	METAL CHIP METAL CHIP	12K 12K	0.50% 0.50%	1/10W 1/10W	
R432		METAL GLAZE 4		1/10W 1/10W	R504 R505 R506	1-216-067-00	METAL GLAZE METAL GLAZE METAL GLAZE	5.6K	5% 5% 5%	1/10W 1/10W 1/10W	
R434 R435	1-216-105-91	METAL GLAZE 2	20K 5%	1/10W 1/10W	R507	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R436 R437	1-216-097-91	METAL GLAZE 1	00K 5%	1/10W 1/10W	R508 R509	1-216-089-91	METAL GLAZE METAL GLAZE	47K	5% 5%	1/10W 1/10W	
R438 R439		METAL GLAZE 1		1/10W 1/10W	R510 R511		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	
R440 R441	1-216-049-91 1-216-645-11	METAL GLAZE 11 METAL CHIP 56	K 5% 60 0.50%	1/10W 1/10W	R512 R513	1-216-295-91	METAL GLAZE CONDUCTOR, C	HIP	5%	1/10W	
R442 R443		METAL CHIP 6 METAL GLAZE 1	80 0.50% K 5%	1/10W 1/10W	R514 R515 R516	1-216-675-11	CONDUCTOR, C METAL CHIP METAL GLAZE	10K	0.50%	1/10W 1/10W	
R444 R445		METAL GLAZE 2: METAL GLAZE 8:		1/10W 1/10W	R517	1-214-888-00		10K	5% 1%	1/10W	
R447 R448	1-216-049-91	METAL GLAZE 1	K 5%	1/10W 1/10W	R518 R519		<b>METAL GLAZE</b>		5% 5%	1/2W 1/10W	
R449 R450		METAL GLAZE 1	-	1/10W 1/10W	R520 R521	1-249-423-11 1-216-065-00	CARBON METAL GLAZE	3.3K 4.7K	5% 5%	1/4W F 1/10W	7
R451 R452	1-216-037-00	METAL GLAZE 3		1/10W 1/10W	R523 R524		METAL OXIDE METAL GLAZE		5% 5%	2W F 1/10W	7
R453 R455	1-216-097-91	METAL GLAZE 16 METAL GLAZE 3	00K 5%	1/10W 1/10W	R525 R526	1-216-069-00 1-216-089-91	METAL GLAZE METAL GLAZE	6.8 <b>K</b> 47 <b>K</b>	5% 5%	1/10W 1/10W	
R456 R457		METAL GLAZE 1		1/10W 1/10W	R527 R528		METAL GLAZE		5% 5%	1/10W	
R458 R459	1-216-113-00	<b>METAL GLAZE 4</b>		1/10W	R529 R530	1-216-089-91	METAL GLAZE METAL OXIDE	47K	5% 5% 5%	1/10W 1/10W 2W F	7
R460	1-216-295-91	CONDUCTOR, CH	ΠP		R531 R532	1-216-077-00	METAL GLAZE METAL OXIDE	15K	5% 5%	1/10W 3W F	
R462 R463		METAL CHIP 1 METAL GLAZE 4	K 0.50%	1/10W 1/10W	R533	1-247-723-71		6.8K	5%	1/4W F	



REF. NO.	PART NO.	DESCRIPTION		F	REMARK	REF. NO.	PART NO.	DESCRIPTION		R	EMARK
R534	1-216-085-00	METAL GLAZE	33K	5%	1/10W	R599	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R535	1-249-448-11		1.2	5%	1/4W F	KJ	1-210-045-11	METAL CIII	500	0.50%	1/10 W
R536		<b>METAL GLAZE</b>		5%	1/10W	R1103	1-216-077-00	<b>METAL GLAZE</b>	15K	5%	1/10W
R537	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R1104		METAL CHIP	100K	0.50%	1/10W
R539	1 216 065 00	METAL GLAZE	4 7V	5%	1/10W	R1105 R1106		METAL GLAZE		5%	1/10W
R540		METAL GLAZE		5%	1/10W 1/10W	R1100		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R541	1-249-383-11		1.5	5%	1/4W F	11107	1 210 057 00	WILLIAM GENERA	2.71	370	1/1011
R542		<b>METAL GLAZE</b>		5%	1/10W	R1108		METAL CHIP	18K	0.50%	1/10W
R543	1-212-883-00	FUSIBLE	120	5%	1/4W F	R1111		METAL GLAZE		5%	1/10W
R544	1-216-095-00	METAL GLAZE	82K	5%	1/10W	R1112 R1113		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R545		METAL GLAZE		5%	1/10W	R1114		METAL GLAZE		5%	1/10W
R546	1-249-425-11		4.7K	5%	1/4W F						
R547 R548		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1115 R1116		METAL GLAZE	1K 12K	5%	1/10W
K346	1-210-037-00	METAL OLAZE	2.2 <b>K</b>	370	1/10₩	R1117		METAL CHIP METAL GLAZE		0.50% 5%	1/10W 1/10W
R549	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	R1118		METAL GLAZE		5%	1/10W
R550		METAL GLAZE		5%	1/10W	R1119	1-216-694-11	METAL CHIP	62K	0.50%	1/10W
R551 R552		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1120	1 216 000 01	METAL GLAZE	17V	5%	1/10W
R552 R553		METAL GLAZE		5%	1/10W	R1123		METAL GLAZE		5%	1/10W
						R1124		METAL GLAZE		5%	1/10W
R554		METAL GLAZE		5%	1/10W	R1125		METAL GLAZE		5%	1/10W
R555 R556		METAL CHIP METAL OXIDE	51K	0.50% 5%	1/10W 2W F	R1126	1-216-041-00	METAL GLAZE	470	5%	1/10W
R558		METAL OXIDE		5%	ĨW F	R1128	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R559	1-216-105-91	METAL GLAZE	220K	5%	1/10W	R1129	1-216-071-00	<b>METAL GLAZE</b>	8.2K	5%	1/10W
				(14	4M2U/E/A)			METAL GLAZE		5%	1/10W
R559	1-216-109-00	METAL GLAZE	330K	5%	1/10W	R1131 R1132		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
KJJ/	1-210-105-00	MILLIAD GEALL	JJUK		4M4U/E/A)	KIIJZ	1-210-071-00	METAL OLALL	0.2K	370	1/10**
R560		METAL GLAZE		5%	1/10W	R1133		<b>METAL GLAZE</b>		5%	1/10W
R561		METAL GLAZE		5%	1/10W	R1134		METAL GLAZE		5%	1/10W
R562	1-247-696-11	CARBON	47	5% (14	1/4W F 4M4U/E/A)	R1136 R1137		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R563	1-216-017-91	<b>METAL GLAZE</b>	47	5% `	1/10W	R1138		METAL GLAZE		5%	1/10W
D564	1016 107 00	METAL OF ARE	OCOTE	• ~		D1100	1 014 055 00		4 077		
R564 R565		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1139 R1140		METAL GLAZE METAL CHIP	1.8K 1.2K	5% 0.50%	1/10W 1/10W
R566		METAL CHIP	27K		1/10W	R1141		METAL GLAZE		5%	1/10W
B. #			4		4M2U/E/A)			METAL CHIP	1.2K	0.50%	1/10W
R566	1-216-691-11	METAL CHIP	47K		1/10W 4M4U/E/A)	R1143	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R567	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R1144	1-216-073-00	METAL GLAZE	10K	5%	1/10W
						R1145		METAL GLAZE		5%	1/10W
R568 R569	1-216-073-00	METAL GLAZE	10K 18K	5% 5%	1/10W 1/2W	R1146 R1147		METAL GLAZE METAL GLAZE		5%	1/10W
R571		METAL GLAZE		5%	1/10W	R1150		METAL GLAZE		5% 5%	1/10W 1/10W
R572		<b>METAL GLAZE</b>		5%	1/10W					- ,-	
R573	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	R1151		METAL GLAZE		5%	1/10W
R574	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R1155 R1161		METAL GLAZE METAL CHIP	3.3M 1M	5% 0.50%	1/10W 1/10W
					4M4U/E/A)	R1162		METAL CHIP	470K	0.50%	1/10W
R575	1-249-383-11		1.5	5%	1/4W F	R1163	1-216-033-00	METAL GLAZE	220	5%	1/10W
R576 R577		METAL GLAZE		5% 5%	1/10W 1/10W	D1164	1 216 040 01	METAL OLATE	117	E 01	1 /1 050
NJ11	1-210-013-00	METAL GLAZE	1014		4M4U/E/A)	R1164 R1165		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R578	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	R1167	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R580	1 216 106 01	METAL GLAZE	2205	5%	1/10W	R1168 R1169		METAL GLAZE		5%	1/10W
R580		METAL GLAZE		5%	1/10W	K1103	1-210-09/-91	METAL GLAZE	1001	5%	1/10W
				(1	4M4U/E/A)	R1170		METAL GLAZE		5%	1/10W
R582		METAL GLAZE		5%	1/10W	R1171		METAL GLAZE		5%	1/10W
R583 R584		METAL GLAZE METAL GLAZE		5%	1/10W	R1172		METAL GLAZE		5%	1/10W
NJ04	1-210-0/1-00	MICIAL GLAZE	0.4A	5%	1/10W	R1173 R1174		CONDUCTOR, C METAL GLAZE		5%	1/10W
R585		METAL GLAZE		5%	1/10W						
R586		METAL CHIP	30K	0.50%	1/10W	R1177		METAL GLAZE		5%	1/10W
R587 R588		METAL CHIP METAL GLAZE	10K 15K	0.50% 5%	1/10W 1/10W	R1179 R1180		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R589		METAL GLAZE		5%	1/10W	R1182		METAL GLAZE		5%	1/10W
						R1183		METAL GLAZE		5%	1/10W
R590 R591		METAL GLAZE METAL CHIP	22K 22K	5% 0.50%	1/10W 1/10W	R1184	1_016.101.11	METAL GLAZE	2 714	£07.	1/100
R592	1-247-688-11		10	5%	1/10W F	R1185		METAL GLAZE		5% 5%	1/10W 1/10W
R593	1-216-647-11	METAL CHIP	680	0.50%	1/10W	R1186	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W
R594	1-260-104-91	CARBON	2.7K	5%	1/2W	R1187 R1188		METAL GLAZE		5%	1/10W
R595	1-216-689-11	METAL GLAZE	39K	5%	1/10W	W1100	1-210-131-11	METAL GLAZE	2. / IVI	5%	1/10W
R596	1-214-754-00	METAL	11 <b>K</b>	1%	1/4W	R1189		METAL GLAZE		5%	1/10W
R597 R598	1-249-417-11	CARBON METAL GLAZE	1K 33K	5% 5%	1/4W F 1/10W	R1190 R1191		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
	,				27 2 47	/-		THE OFFIEE	U, LL	5 /0	1110 H



REF. NO.	PART NO.	DESCRIPTION		F	REMARK	REF. NO.	PART NO.	DESCRIPTION		F	EMARK
R1192	1 216 121 11	METAL CLAZE	0.714	-			********	***************************************		-	
R1193	1-216-025-91	METAL GLAZE METAL GLAZE	100	5% 5%	1/10W 1/10W	R1365 R1366 R1367	1-216-081-00	METAL GLAZE METAL GLAZE METAL CHIP		5% 5% 0.50%	1/10W 1/10W 1/10W
R1194 R1195		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1368	1-216-050-00	METAL GLAZE	278	5%	1/1037
R1196	1-216-085-00	METAL GLAZE	33K	5%	1/10W	R1369		METAL GLAZE		5%	1/10W 1/10W
R1197 R1198		METAL GLAZE		5%	1/10W	R1370		METAL GLAZE		5%	1/10W
K1196	1-210-083-00	METAL GLAZE	33K	5%	1/10W	R1371 R1372		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R1301		METAL GLAZE		5%	1/10W		. 210 005 51	MILITID GENEL	7/12	570	1/10**
R1302 R1303		METAL GLAZE METAL GLAZE		5%	1/10W 1/10W	R1373		METAL GLAZE		5%	1/10W
R1304		METAL GLAZE		5% 5%	1/10W 1/10W	R1374 R1375		METAL GLAZE METAL CHIP	150K 560	5% 0.50%	1/10W 1/10W
R1305		METAL GLAZE		5%	1/10W	R1376	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1306	1-216-645-11	METAL CHIP	560	0.50%	1/10W	R1377	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R1307		METAL GLAZE		5%	1/10W	R1378	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1308		METAL CHIP	560	0.50%	1/10W	R1379		METAL GLAZE		5%	1/10W
R1309 R1311		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1380 R1381		METAL CHIP METAL CHIP	560 680	0.50% 0.50%	1/10W
				5 70		R1382		METAL GLAZE		5%	1/10W 1/10W
R1312 R1313		METAL GLAZE METAL GLAZE		5%	1/10W	D1202	1 017 701 11	ACTUAL COMP			
R1314		METAL GLAZE		5% 5%	1/10W 1/10W	R1383 R1384		METAL CHIP METAL GLAZE	18K 56K	0.50% 5%	1/10W 1/10W
R1315	1-216-025-91	<b>METAL GLAZE</b>	100	5%	1/10W	R1385		METAL GLAZE		5%	1/10W
R1316	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1386 R1387		METAL GLAZE		5%	1/10W
R1317	1-216-033-00	METAL GLAZE	220	5%	1/10W	K130/	1-210-033-11	METAL CHIP	1.2K	0.50%	1/10W
R1318		METAL GLAZE		5%	1/10W	R1388		METAL CHIP	39K	0.50%	1/10W
R1319 R1320		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1389 R1390		METAL CHIP METAL CHIP	2K 680	0.50% 0.50%	1/10W 1/10W
R1321		METAL CHIP	820	0.50%	1/10W	R1391		METAL CHIP		0.30% 5%	1/10W 1/10W
D 1222	1 214 057 00	METAL CLASE	0.07/	e 01	1 /1 0377	R1392		METAL GLAZE		5%	1/10W
R1322 R1324		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1393	1-216-063-91	METAL GLAZE	3 OK	5%	1/10W
R1325	1-216-652-11	METAL CHIP	1.1K	0.50%	1/10W	R1394		METAL GLAZE		5%	1/10W
R1326 R1327		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1395		METAL GLAZE		5%	1/10W
IXIJ21	1-210-073-00	METAL OLAZE	IUK	370	1/10W	R1396 R1397		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R1328		METAL GLAZE		5%	1/10W						
R 1329 R 1330		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1399 R1401		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R 1331	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	R1402		CONDUCTOR, C		370	1/10 **
R1332	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	R1403 R1404		METAL CHIP	1 <b>K</b>	0.50%	1/10W
R1333	1-216-049-91	METAL GLAZE	1K	5%	1/10W	K1404	1-210-081-11	METAL CHIP	18K	0.50%	1/10W
R1334		METAL GLAZE		5%	1/10W	R1405		METAL GLAZE		5%	1/10W
R1335 R1336	1-249-401-11 1-216-095-00	METAL GLAZE	47 82K	5% 5%	1/4W F 1/10W	R1406 R1407		METAL CHIP METAL GLAZE	1.2K	0.50% 5%	1/10W 1/10W
R1337		METAL GLAZE		5%	1/10W	R1408		METAL GLAZE		5%	1/10W
R 1338	1-216-647-11	METAL CHIP	680	0.50%	1/10W	R1409	1-216-295-91	CONDUCTOR, C	HIP		
R1339		METAL GLAZE		5%	1/10W	R1410	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R1340		METAL GLAZE		5%	1/10W	R1411	1-216-073-00	<b>METAL GLAZE</b>	10K	5%	1/10W
R1341 R1342		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1412 R1413		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
						R1414		METAL GLAZE		5%	1/10W
R1343 R1344		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1415	1-216-002-00	METAL GLAZE	69¥	5 <i>01</i> -	1/1011
R1345	1-216-109-00	<b>METAL GLAZE</b>	330K	5%	1/10W	R1416		METAL GLAZE		5% 5%	1/10W 1/10W
R1346 R1347		METAL GLAZE		5%	1/10W	R1417		METAL GLAZE		5%	1/10W
N134/	1-210-0/3-00	METAL GLAZE	IUK	5%	1/10W	R1418 R1419	1-216-033-00	METAL GLAZE METAL GLAZE	220 100	5% 5%	1/10W 1/10W
R1348		METAL GLAZE		5%	1/10W						
R1349 R1350		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1420 R1421		METAL GLAZE METAL CHIP	47K 820	5%	1/10W
R1351	1-216-033-00	<b>METAL GLAZE</b>	220	5%	1/10W	R1422	1-216-085-00	<b>METAL GLAZE</b>	33K	0.50% 5%	1/10W 1/10W
R1352	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1423	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1353	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1424	1-410-081-00	METAL GLAZE	22K	5%	1/10W
R1354	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R1425		METAL GLAZE		5%	1/10W
R1355 R1356		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1426 R1427		METAL GLAZE METAL CHIP	470K 18K	5%	1/10W
R1357		METAL GLAZE		5%	1/10W	R1428		METAL CHIP		0.50% 5%	1/10W 1/10W
R1358	1-216-071-00	METAL GLAZE	8 25	5%	1/10W	R1429		METAL CHIP	5.1K	0.50%	1/10W
R1359		METAL GLAZE		5% 5%	1/10W	R1430	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1360	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1431	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R1361 R1362		METAL GLAZE METAL CHIP	470K 11K	5% 0.50%	1/10W 1/10W	R1432 R1433		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
					i	R1434			560	0.50%	1/10W
R1363 R1364		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1435	1_216_088 00	METAL GLAZE	1 91/		
4 207		OUALE	·VIL	5 10	272011	17.733	1-210-033-00	MILIAL ULAZE	1.01	5%	1/10W



• The components identified by 

in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifies par une trame et une marque ∆ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION		j	REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK	
R1436	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R1508	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1437		METAL GLAZE		5%	1/10W	R1509		METAL GLAZE		5%	1/10W	
R1438		METAL GLAZE		5%	1/10W	R1510		METAL GLAZE		5%	1/10W	
R1439	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R1511		METAL OXIDE		5%		F
R1440	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1512	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R1441		METAL GLAZE		5%	1/10W	R1513	1-247-752-11	CARRON	1K	5%	1/2W	E
R1442		METAL GLAZE		5%	1/10W	R1514	1-247-711-11		680	5%	1/4W	
R1443		METAL GLAZE		5%	1/10W	R1515		METAL OXIDE		5%	îW	F
R1444	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R1516		METAL GLAZE			1/10W	
R1445	1-216-071 00	METAL GLAZE	0 212	5%	1/10W	R1517	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1446		METAL GLAZE		5%	1/10W	R1518	1-215-867-00	METAL OXIDE	470	5%	1W	F
R1447		METAL GLAZE		5%	1/10W	R1519		METAL OXIDE		5%		E
R1448		METAL GLAZE		5%	1/10W	R1520		<b>METAL GLAZE</b>		5%	1/10W	-
R1449	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R1521		METAL GLAZE		5%	1/10W	_
R1450	1-216-129-00	METAL GLAZE	2 2M	5%	1/10W	R1523	1-210-350-11	METAL OXIDE	1.2	5%	1W	F
R1451		METAL GLAZE		5%	1/10W	R1524	1-216-427-00	METAL OXIDE	120	5%	1 <b>W</b>	F
R1452		METAL GLAZE		5%	1/10W	R1525		METAL GLAZE		5%	1/10W	1.
R1453		METAL GLAZE		5%	1/10W	R1526		METAL GLAZE		5%	1/10W	
R1454	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1527	1-249-413-11		470	5%		F
R1455	1-216-113-00	METAL GLAZE	470K	5%	1/10W	R1528	1-215-809-11	METAL OXIDE	1K	5%	1W	F
R1456		METAL GLAZE		5%	1/10W	R1529	1-202-829-11	SOLID	8.2K	20%	1/2W	
R1457		METAL GLAZE		5%	1/10W	R1530		METAL GLAZE		5%	1/10W	
R1458		METAL GLAZE		5%	1/10W	R1531	1-247-697-11	CARBON	56	5%	1/4W	F
R1459	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	R1532		METAL GLAZE		5%	1/10W	
R1460	1,216,007,01	METAL GLAZE	100¥	5%	1/10W	R1533	1-249-414-11	CARBON	560	5%	1/4W	F
R1461		METAL CHIP	560	0.50%	1/10W	R1534	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1462		METAL CHIP	560	0.50%		₩R1536		METAL CHIP	L,LIX	0.30 %	1/10W	***
R1463		METAL CHIP	560	0.50%	1/10W	R1537	1-249-389-11	CARBON	4.7	5%	1/4W	
R1464	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R1538		METAL GLAZE		5%	1/10W	
R1465	1-216-007-01	METAL GLAZE	100K	5%	1/10W	R1539	1-216-097-91	METAL GLAZE	100K	5%	1/10W	
R1466		METAL GLAZE		5%	1/10W					(14	M4U/E/	A)
R1467		METAL GLAZE		5%	1/10W	R1540	1-216-105-91	METAL GLAZE	220K	5%	1/10W	
R1468		METAL GLAZE		5%	1/10W	R1541		METAL GLAZE	22K	5%	1/10W	
R1469	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R1542	1-247-692-71	CARBON	22	5%	1/4W	
R1470	1-216-057-00	METAL GLAZE	2 216	5%	1/10W	R1543	1 216 027 00	METAL CLASE	100		IM4U/E/	A)
R1471		METAL GLAZE		5%	1/10W	R1547		METAL GLAZE METAL OXIDE		5% 5%	1/10W 3W	F
R1472		METAL GLAZE		5%	1/10W	1110 17	1 210 000 00	WIDTHE ONDE	2.2	570	3 **	1
R1473		METAL GLAZE		5%	1/10W	R1548		METAL GLAZE	2.2K	5%	1/10W	
R1475	1-210-0//-11	METAL CHIP	12K	0.50%	1/10W	R1549	1-260-094-11		390	5%	1/2W	
R1476	1-216-063-91	METAL GLAZE	3 9K	5%	1/10W	R1550 R1551	1-249-393-11	METAL GLAZE	220K 10	5% 5%	1/10W 1/4W	E
R1477		METAL GLAZE		5%	1/10W	R1552		METAL GLAZE		5%	1/10W	Г
R1478		METAL GLAZE		5%	1/10W					- / /	272011	
R1480 R1481		METAL GLAZE		5%	1/10W	R1553		METAL GLAZE		5%	1/10W	
K1401	1-210-113-00	METAL GLAZE	JOUR	5%	1/10W	R1554 R1555		METAL GLAZE		5%	1/10W	
R1482	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R1556		CONDUCTOR, O METAL GLAZE		5%	1/10W	
R1483	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R1557		METAL CHIP	220K	0.50%	1/10W	
R1484		METAL GLAZE		5%	1/10W							
R1485 R1486		METAL GLAZE		5%	1/10W	R1558	1-249-393-11		10	5%	1/4W	
X1700	1-210-097-91	METAL GLAZE	IUUK	5%	1/10W	R1559 R1560	1-249-393-11	METAL GLAZE	10	5%	1/4W	F
R1487	1-216-097-91	METAL GLAZE	100K	5%	1/10W	R1567		METAL GLAZE		5% 5%	1/10W 1/10W	
R1488	1-216-083-00	<b>METAL GLAZE</b>	27K	5%	1/10W	R1568		METAL GLAZE		5%	1/10W	
R1489		METAL GLAZE		5%	1/10W							
R1490 R1491		METAL GLAZE		5%	1/10W	R1569		METAL GLAZE		5%	1/10W	
K1491	1-210-033-00	METAL GLAZE	270	5%	1/10W	R1570 R1571		METAL GLAZE		5%	1/10W	
R1492	1-216-035-00	METAL GLAZE	270	5%	1/10W	R1572		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	
R1493		METAL GLAZE		5%	1/10W	R1573		METAL GLAZE		5%	1/10W	
R1494		METAL GLAZE		5%	1/10W					• , ,		
R1495 R1496		METAL GLAZE		5%	1/10W	R1574		METAL GLAZE		5%	1/10W	
K1490	1-210-007-71	METAL GLAZE	4/K	5%	1/10W	R1575 R1576		METAL GLAZE		5%	1/10W	
R1498	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R1577		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	
R1499	1-216-057-00	<b>METAL GLAZE</b>	2.2K	5%	1/10W	R1578	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1500		METAL CHIP	680	0.50%	1/10W	B						
R1501 R1502	1-216-075-00 1-260-105-11	METAL GLAZE	12K 3.3K	5%	1/10W	R1579		METAL CHIP	39K		1/10W	
11202	1-#00-103-11	CUMPON	J.J.K.	5%	1/2W	R1580	1-210-089-91	METAL GLAZE	4/K	5%	1/10W	A \
R1503		METAL GLAZE		5%	1/10W	R1581	1-208-612-11	METAL OXIDE	10M	5% (14	M4U/E/ 1W	٦)
R1504		METAL CHIP	30K	0.50%	1/10W						M4U/E/	A)
R1505 R1506	1-247-688-11		10	5%	1/4W F	R1582	1-208-610-11	METAL OXIDE	2M	5%	1W	
R1507		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R1583	1-212-998-00	ETICIDI E	470		M4U/E/	
	1210 000 00	Gui Mil	****	3 N	272017	K1503	1-212-330-00	POSIBLE	470	5%	1/2W M4U/E/	
										(14		-,



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REF. NO.	PART NO.	DESCRIPTION		F	REMARK	REF. NO.	PART NO.	DESCRIPTION		T.	REMARK
				-				DECKH HON		-	CONTAIN
R1589		METAL OXIDE		5%	3W F	R2367	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R1595 R1596		METAL GLAZE METAL GLAZE		5% 5%	1/10W	D2240	1 214 045 00	METAL OLASE	4 977		
R1597		METAL GLAZE		5%	1/10W 1/10W	R2368 R2369		METAL GLAZE METAL CHIP	4./K 10K	5% 0.50%	1/10W 1/10W
R1598		METAL GLAZE		5%	1/10W	R2371		METAL CLIF		5%	1/10W 1/10W
				•		R2372		METAL GLAZE		5%	1/10W
R1599	1-202-830-00	SOLID	10K	20%	1/2W	R2374		METAL GLAZE		5%	1/10W
TD 2200	1 216 065 00	METAL OLASE	4 5377		4M4U/E/A)	2000	4 44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				
R2300 R2301		METAL GLAZE METAL GLAZE		5%	1/10W 1/10W	R2375		METAL GLAZE		5%	1/10W
R2302		METAL CHIP	6.8K	5% 0.50%	1/10W 1/10W	R2376 R2377		METAL GLAZE METAL GLAZE		5%	1/10W
R2303		METAL GLAZE		5%	1/10W	R2378		METAL GLAZE		5% 5%	1/10W 1/10W
				•	.,	R2379		METAL GLAZE		5%	1/10W
R2304		METAL GLAZE		5%	1/10W					•	1,10
R2305		METAL GLAZE		5%	1/10W	R2380		METAL GLAZE		5%	1/10W
R2306 R2307		METAL GLAZE		5%	1/10W	R2381		METAL GLAZE		5%	1/10W
R2307		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R2382 R2383		METAL GLAZE		5%	1/10W
142500	1 210 105 00	METAL CLALL	TOOK	3 /0	1/10 W	R2384		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R2309	1-216-049-91	<b>METAL GLAZE</b>	1K	5%	1/10W	112504	1-210-007-11	MILITAL GEALE	JAK	370	1710W
R2310		METAL GLAZE		5%	1/10W	R2385	1-216-073-00	<b>METAL GLAZE</b>	10K	5%	1/10W
R2311		METAL GLAZE		5%	1/10W	R2386		<b>METAL GLAZE</b>		5%	1/10W
R2312 R2313		METAL GLAZE		5%	1/10W	R2387		METAL GLAZE		5%	1/10W
K2313	1-210-049-91	METAL GLAZE	1K	5%	1/10W	R2388 R2389		METAL GLAZE METAL GLAZE		5%	1/10W
R2314	1-216-645-11	METAL CHIP	560	0.50%	1/10W	K2309	1-210-033-00	METAL GLAZE	220	5%	1/10W
R2315		METAL CHIP	15K	0.50%	1/10W	R2390	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R2316		METAL GLAZE		5%	1/10W	R2391		METAL CHIP	680	0.50%	1/10W
R2317		METAL GLAZE		5%	1/10W	R2392		<b>METAL GLAZE</b>		5%	1/10W
R2318	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	R2393		METAL GLAZE		5%	1/10W
R2319	1-216-093-00	METAL GLAZE	68K	5%	1/10W	R2394	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2320		METAL CHIP	12K	0.50%	1/10W	R2396	1-216-041-00	METAL GLAZE	470	5%	1/10W
R2321		<b>METAL GLAZE</b>		5%	1/10W	R2397		METAL GLAZE		5%	1/10W
R2322		METAL GLAZE		5%	1/10W	R2398		METAL GLAZE		5%	1/10W
R2323	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	R2399		METAL GLAZE		5%	1/10W
R2324	1 216 072 00	METAL GLAZE	101	5%	1/1031/	R2501	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R2325		METAL GLAZE		5%	1/10W 1/10W	R2502	1-216-081-00	METAL GLAZE	225	5%	1/100/
R2326		METAL GLAZE		5%	1/10W	R2502		METAL GLAZE		5%	1/10W 1/10W
R2327	1-216-059-00	<b>METAL GLAZE</b>	2.7K	5%	1/10W	R2504		METAL GLAZE		5%	1/10W
R2328	1-216-049-91	METAL GLAZE	1K	5%	1/10W						M2U/E/A)
R2329	1-216-050-00	METAL GLAZE	274	5%	1/1037	R2504	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R2329		METAL GLAZE		5%	1/10W 1/10W	R2551	1-216-001-00	METAL GLAZE	56V	5%	IM4U/E/A)
R2331		METAL GLAZE		5%	1/10W	1(2551	1-210-031-00	METAL OLAZE	JUK	370	1/10W
R2332		<b>METAL GLAZE</b>		5%	1/10W	R2552	1-216-085-00	<b>METAL GLAZE</b>	33K	5%	1/10W
R2333	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R2553		METAL GLAZE		5%	1/10W
R2334	1 216 041 00	METAL GLAZE	470	5%	1/1037	R2555		METAL GLAZE		5%	1/10W
R2335		METAL GLAZE		5%	1/10W 1/10W	R2556 R2557		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R2336		METAL GLAZE		5%	1/10W	R2557	1-210-007-00	METAL OLAZE	J.0K	370	1/10W
R2337		<b>METAL GLAZE</b>		5%	1/10W	R2558	1-216-057-00	<b>METAL GLAZE</b>	2.2K	5%	1/10W
R2338	1-216-073-00	METAL GLAZE	10 <b>K</b>	5%	1/10 <b>W</b>	R2559	1-216-039-00	METAL GLAZE	390	5%	1/10W
R2339	1 216 027 00	METAL CLATE	220	EM	1/10337	R2560		METAL GLAZE		5%	1/10W
R2339 R2340		METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W	R2561 R2562		METAL GLAZE METAL GLAZE		5%	1/10W
R2341		METAL GLAZE		5%	1/10W	K2502	1-210-001-00	MILIAL GLAZE	10	5%	1/10W
R2342	1-216-071-00	<b>METAL GLAZE</b>	8.2K	5%	1/10W	R2563	1-249-421-11	CARBON	2.2K	5%	1/4W
R2343	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R3301	1-216-073-00	<b>METAL GLAZE</b>	10K	5%	1/10W
R2344	1-216-121-01	METAL CLAZE	114	5 <i>0</i> 7.	1/1037	R3302		METAL GLAZE		5%	1/10W
R2344 R2345		METAL GLAZE METAL CHIP	1M 18K	5% 0.50%	1/10W 1/10W	R3303 R3304		METAL GLAZE METAL GLAZE		5%	1/10W
R2346		METAL GLAZE		5%	1/10W	K3304	1-210-003-00	METAL GLAZE	4./K	5%	1/10W
R2347		METAL GLAZE		5%	1/10W	R3305	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R2348	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	R3306	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
D 2240	1 016 670 11	METAL CUID	1 577	0.500	1110111	R3308		METAL GLAZE		5%	1/10W
R2349 R2350		METAL CHIP METAL GLAZE	15K 3 3K	0.50% 5%	1/10W 1/10W	R3309 R3310		METAL GLAZE		5%	1/10W
R2351		METAL GLAZE		5%	1/10W	K3310	1-210-049-91	METAL GLAZE	IK	5%	1/10W
R2352		METAL GLAZE		5%	1/10W	R3311	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R2353	1-216-041-00	METAL GLAZE	470	5%	1/10W	R3312	1-216-105-91	METAL GLAZE		5%	1/10W
Dors.	1 214 025 04	METAL CLASS	100		1/1077	R3317	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R2354 R2357		METAL GLAZE		5%	1/10W	R3320		METAL GLAZE		5%	1/10W
R2357 R2358		METAL GLAZE METAL GLAZE		5% 5%	1/10 <b>W</b> 1/10 <b>W</b>	R3323	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R2361		METAL GLAZE		5%	1/10W	R3333	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R2362		METAL GLAZE		5%	1/10W	R3334	1-216-073-00	METAL GLAZE	10K	5%	1/10W
D 24/2	1.014.045.05	\CC#4: 0: :==	4 # **			R3335	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R2363 R2364		METAL GLAZE METAL GLAZE		5%	1/10W	R3337		METAL GLAZE		5%	1/10W
R2365		METAL GLAZE	33K	5% 0.50%	1/10W .   1/10W	R3338	1-210-103-00	METAL GLAZE	180K	5%	1/10W
R 2366		METAL GLAZE		5%	1/10W	R3339	1-216-093-00	METAL GLAZE	68K	5%	1/10W
	_									5 10	.,



Les composants identifies par une trame et une marque  $\Lambda$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie

The componants identified by shading and mark ∆ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
R3340		METAL GLAZE 120K	5%	1/10W			<test pin=""></test>			~
R3344 R3345	1-216-033-00	METAL GLAZE 22K METAL GLAZE 220	5% 5%	1/10W 1/10W	TP300	* 1-535-877-22	CHIP, CHECKE	R		
R3346	1-216-025-91	METAL GLAZE 100	5%	1/10W	TP301 TP305	* 1-535-877-22	CHIP, CHECKE	R		
R3347 R3348		METAL GLAZE 100 METAL GLAZE 100	5% 5%	1/10W 1/10W	TP306 TP307	* 1-535-877-22	CHIP, CHECKE	R		
R3349	1-216-025-91	METAL GLAZE 100	5%	1/10W	į		CHIP, CHECKE			
R3350 R3351		METAL GLAZE 470K METAL GLAZE 820K	5% 5%	1/10W 1/10W	TP311 TP312		CHIP, CHECKE CHIP, CHECKE			
R3355	1-216-089-91	METAL GLAZE 47K	5%	1/10W	TP401 TP402	* 1-535-877-22	CHIP, CHECKE	R		
R3356 R3357	1-216-051-00	METAL GLAZE 1.2K	5%	1/10W	TP403		CHIP, CHECKE			
R3358	1-216-051-00	METAL GLAZE 1.2K METAL GLAZE 1.2K	5% 5%	1/10W 1/10W	TP501	* 1-535-877-22	CHIP, CHECKE	R		
R3359	1-216-081-00	METAL GLAZE 22K	5%	1/10W	TP502 TP503	*1-535-877-22	CHIP, CHECKE CHIP, CHECKE	R		
R3360 R3361		METAL GLAZE 10K METAL GLAZE 47K	5% 5%	1/10W 1/10W	TP504		CHIP, CHECKE			
R3362	1-216-049-91	METAL GLAZE 1K	5%	1/10W						
R3363 R3364		METAL GLAZE 1K METAL GLAZE 10K	5% 5%	1/10W 1/10W	1 1		<crystal></crystal>			
R3376	1-216-081-00	METAL GLAZE 22K	5%	1/10W	X101 X300		VIBRATOR, CE VIBRATOR, CR			
R3377 R3378	1-216-107-00	METAL GLAZE 270K	5%	1/10W	X300	3-741-396-01	INSULATOR			
R3381	1-216-041-00	METAL GLAZE 560K METAL GLAZE 470	5% 5%	1/10W 1/10W	X301 X301	3-741-396-01	VIBRATOR, CR INSULATOR	YSTAL		
R3382	1-216-645-11	METAL CHIP 560	0.50%	1/10W						
R3383 R3384		METAL GLAZE 6.8K METAL GLAZE 3.9K	5%	1/10W		***	******			
R3385	1-216-057-00	METAL GLAZE 2.2K	5% 5%	1/10W 1/10W					****	*****
R3386 R3390		METAL GLAZE 2.2K METAL GLAZE 2.2K	5% 5%	1/10W 1/10W		* A-1316-302-A	A G BOARD, CO			
R3394	1-216-089-91	METAL GLAZE 47K	5%	1/10W		1_533_222_11	HOLDER, FUSE			
R3395	1-216-049-91	METAL GLAZE 1K	5%	1/10W		*4-374-846-11	COVER, CAPAC	CITOR, CA		
R3396 R3398		METAL GLAZE 470 METAL CHIP 27K	5% 0.50%	1/10W 1/10W			SCREW (M3X1) RUBBER, SILIC			`
R4401	1-216-085-00	METAL GLAZE 33K	5%	1/10W			,	(.	> 0 ,.	,
R4402 R4404		METAL GLAZE 470K METAL GLAZE 10K	5% 5%	1/10W 1/10W			<capacitor></capacitor>			
R4405	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W	C602	1-130-711-00		0.22MF	20%	250V
R4407 R4408		METAL GLAZE 3.3K METAL GLAZE 2.7K	5% 5%	1/10W 1/10W	C603 C604	.1-130-711-00 1-113-924-11		0.22MF 0.0047MF	20% 20%	250V 250V
R4409	1-216-059-00	METAL GLAZE 2.7K	5%	1/10W	C605 C606	1-113-924-11 1-113-924-11	CERAMIC	0.0047MF 0.0047MF	20%	250V 250V
R4410 R4411	1-216-059-00	METAL GLAZE 2.7K METAL GLAZE 470K	5% 5%	1/10W 1/10W	C607					
R4412	1-216-113-00	METAL GLAZE 470K	5%	1/10W	C608	1-113-924-11 1-113-924-11	CERAMIC	0.0047MF 0.0047MF	20%	250V 250V
R4413		CONDUCTOR, CHIP			C609 C610	1-113-924-11 1-113-924-11		0.0047MF 0.0047MF		250V 250V
R4414 R4415	1-216-295-91 1-216-295-91	CONDUCTOR, CHIP CONDUCTOR, CHIP			C611	1-113-924-11		0.0047MF		250V
R4416		CONDUCTOR, CHIP			C612	1-137-484-11		0.47MF	10%	630V
					C613 C614	1-137-484-11 1-129-718-00	FILM	0.47MF 0.022MF	10% 10%	630V 630V
		<variable resistor=""></variable>			C615 C616	1-136-619-11 1-107-909-11		0.0016MF 47MF	3% 20%	2KV 35V
RV501	1-223-102-00	RES, ADJ, WIREWOUND	120		C617	1-107-430-91				
		-TD A NOTODACED-			C618	1-107-906-11	ELECT	0.0033MF 10MF	20%	1KV 50V
		<transformer></transformer>			C619 C621	1-107-911-11 1-117-791-11		220MF 1000MF	20% 20%	50V 160V
T300 T500	1-406-781-11 1-426-668-11	COIL TRANSFORMER, FERRITI	E (HDT)		C622	1-102-038-00	CERAMIC	0.001MF		500V
T501 d		TRANSFORMER ASSY, FI	YBACK	4M4U/E/A)	C623 C624	1-107-900-51 1-102-038-00		4700MF	20%	35V
T501 d	1-453-232-11	TRANSFORMER ASSY, FL	.YBACK		C625	1-107-900-51	ELECT	0.001MF 4700MF	20%	500V 35V
T501 ·	<b>*</b> 4-058-301 <i>-</i> 01	RING, SHORT	(1)	4M2U/E/A)	C626 C627	1-102-038-00 1-107-900-51		0.001MF 4700MF	20%	500V 35V
T501		SCREW +BVTP 4X16 TYP			C628	1-102-038-00	CERAMIC	0.001MF		500V
T502		TRANSFORMER, FERRITE	E (DFT)	4M4U/E/A)	C629	1-107-891-11 1-126-964-11	ELECT	3300MF	20%	25V
			(1		C631	1-136-853-11	FILM	10MF 0.56MF	20% 5%	50V 200V
		<thermistor></thermistor>			C632	1-107-492-11		47MF	20%	160V
TH500	1-807-970-11	THERMISTOR		ļ	C633 C634	1-107-885-11 1-107-911-11		3300MF 220MF	20% 20%	16V 50V
					C636 C637	1-107-909-11	ELECT	47MF	20%	50V
					C031	1-107-910-11	ELECI	100MF	20%	50V



REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK	K
C638	1-137-484-11	FILM	0.47MF	10%	630V	Q603	8-729-303-61	TRANSISTOR 2	SC3851-G			••
C2601	1-102-038-00	CERAMIC	0.001MF		500V			PEGIGEOR				
		<connector></connector>				R601	1-202-719-00	<resistor></resistor>	1 <b>M</b>	20%	1/2W	
CN601 *	* 1-580-689-11	PIN, CONNECTO		ARD) 4	1P	R602 R603	1-216-491-11	METAL OXIDE METAL OXIDE	56K	5% 5%	3W 3W	F F
CN602 *	1-695-561-11	PIN, CONNECTO	OR (PC BO	ARD) 7	IP	R604 R605	1-249-418-11 1-249-415-11	CARBON	1.2K 680	5% 5%	1/4W 1/4W	•
CN605	1-573-964-11	PIN, CONNECTO PLUG, CONNEC	or (PC bo.			R606		WIREWOUND	0.15	10%	3W	F
		PLUG, CONNEC				R607 R608	1-249-426-11 1-249-428-11	CARBON	5.6K 8.2K	5% 5%	1/4W 1/4W	
CN609	1-508-786-00	PIN, CONNECTO	OR (5mm P	ITCH)	2P	R609 R610	1-249-428-11 1-249-428-11		8.2K 8.2K	5% 5%	1/4W 1/4W	
		<diode></diode>				R611	1-249-417-11		1K	5%	1/4W	F
D601		DIODE D4SB60I				R612 R613	1-249-404-00 1-249-419-11	CARBON	82 1.5K	5% 5%	1/4W 1/4W	_
D605 D606 D607	8-719-988-55	DIODE EGP20G DIODE RGP15K DIODE RU-3AM				R614 R615	1-249-385-11 1-202-727-00		2.2 4.7M	5% 10%	1/4W 1/2W	Г
D608		DIODE ISSI19-2				R617 R618	1-202-933-61 1-202-933-61		0.1 0.1	10% 10%	1/2W 1/2W	F F
D609 D610		DIODE RU-3AM DIODE D5L60	I			R619 R620	1-202-933-61 1-202-933-61	FUSIBLE	0.1 0.1 0.1	10% 10% 10%	1/2W 1/2W	F F
D612 D613	8-719-045-48	DIODE FML-G1: DIODE EGP20G	2S			R621		METAL OXIDE		5%	1W	F
D614		DIODE FML-G1	2S			R622 R623	1-249-401-11 1-249-417-11		47 1K	5% 5%	1/4W 1/4W	F
<b>D6</b> 15 <b>D6</b> 16		DIODE EGP20G DIODE ERA15-0	16			R626 R627	1-247-895-91	CARBON METAL OXIDE	470K 39K	5% 5%	1/4W 3W	F
D617 D618	8-719-110-44	DIODE RD16EST DIODE EGP20G				R628		METAL OXIDE		5%	3W	F
2010	0 /12 //2 00	2.022 20. 200				R629 R630	1-202-727-00 1-216-490-11	SOLID METAL OXIDE	4.7M 39K	10% 5%	1/2W 3W	F
		<ferrite beal<="" td=""><td>D&gt;</td><td></td><td></td><td>R631 R632</td><td>1-249-412-11 1-249-401-11</td><td></td><td>390 47</td><td>5% 5%</td><td>1/4W 1/4W</td><td>F F</td></ferrite>	D>			R631 R632	1-249-412-11 1-249-401-11		390 47	5% 5%	1/4W 1/4W	F F
FB601 FB602	1-410-396-41	FERRITE BEAD FERRITE BEAD	INDUCTO	R 0.45	UH	R1602	1-202-842-11		220K	20%	1/2W	
FB603 FB604	1-410-396-41	FERRITE BEAD FERRITE BEAD	INDUCTO	R 0.45	UH	R1603	1-202-842-11	SOLID	220K	20%	1/2W	
FB605		FERRITE BEAD						<relay></relay>				
FB606 FB607 FB608	1-410-396-41	FERRITE BEAD FERRITE BEAD FERRITE BEAD	INDUCTO	R 0.45	UH	RY601	RY601 1-515-738-11 RELAY					
FB609 FB610	1-410-397-21	FERRITE BEAD FERRITE BEAD	INDUCTO	R 1.1U	H			<transforme< td=""><td></td><td></td></transforme<>				
FB611		FERRITE BEAD				T601	1-426-716-11	TRANSFORME		TER (I	FT)	
FB612 FB613	1-410-397-21	FERRITE BEAD FERRITE BEAD	INDUCTO	R 1.1U	Н	T602 T603	1-426-716-11	TRANSFORMER TRANSFORMER	R, LINE FII	.TER (L	FT)	
										·	ĺ	
		<ic></ic>						<thermistor< td=""><td></td><td></td><td></td><td></td></thermistor<>				
IC601 IC601	8-749-925-03	SHEET, INSULA IC STR-M6524	VIING			THP601	1-808-059-31	THERMISTOR,	POSITIVE			
IC602 IC603 IC604		IC STR-S3115 IC NJM78M05FA	A					<test pin=""></test>				
IC605	8-759-231-58					TP1601	1-536-354-00	POST PIN				
1000	0 102 201 00							<varistor></varistor>				
		<coil></coil>				VDR601	1-809-942-71	VARISTOR				
L601 L1601	1-410-679-31	COIL, CHOKE 2 INDUCTOR 270				VDR602	1-809-942-71	VARISTOR				
L1602 L2601		COIL, CHOKE COIL (WITH CO	RE) 45UH									
		BUOTO COVE	r ED.			*****	***********	******	******	*****	(平水市水水水	**
Par/04	0 740 000 50	<photo coup<="" td=""><td></td><td>76</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></photo>		76								
PH601	o-/4 <del>9-9</del> 23-50	PHOTO COUPL	ek Pulliy	3								
		<transistor:< td=""><td>&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></transistor:<>	>									
Q601	8-729-140-96	TRANSISTOR 2	SD774-34			I						



REF, NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMAR	K
	* A-1331-627-	A C BOARD, CC	MPLETE			Q702	8-729-119-78	TRANSISTOR 2	SC2785-H	FE		
	* A-1331-631-	A C BOARD, CC	MPLETE	(PVM-	14M4U/E/A)	Q703 Q704 Q705	8-729-200-17	TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2	SA1091-0	1		
	7-682-949-01	SCREW +PSW 3		(PVM-	14M2U/E/A)	Q710 8-729-200-17 TRANSISTOR 2SA1091-0						
		<capacitor></capacitor>				Q711 Q712 Q713	8-729-200-17 8-729-200-17	TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2	SA1091-0 SA1091-0			
C701 C702	1-102-157-00 1-102-157-00		560PF 560PF	10% 10%	500V 500V	Q714	8-729-255-12	TRANSISTOR 2	SC2551-O			
C703 C704	1-102-157-00 1-102-157-00 1-102-121-00	CERAMIC	560PF 0.0022MF	10%	500V 500V	Q715 Q716	8-729-119-78	TRANSISTOR 2 TRANSISTOR 2	SC2785-H	FE		
C705	1-104-665-11		100MF	20%	16V	Q717	8-729-119-78	TRANSISTOR 2	SC2785-H	FE		
C706 C707	1-102-074-00 1-162-116-00		0.001MF 680PF	10% 10%	50V 2KV			<resistor></resistor>				
C708 C710	1-136-601-11 1-101-880-00	FILM	0.01MF 47PF	5% 5%	630V 50V	R702 R704	1-247-903-00		1M	5%	1/4W	
C711	1-101-880-00		47PF	5%	50V	R705	1-215-405-00 1-215-405-00	METAL	220 220	1% 1%	1/4W 1/4W	
C712 C713	1-101-880-00 1-107-651-11		47PF 4.7MF	5% 20%	50V 250V	R706 R707	1-215-405-00 1-249-431-11		220 15K	1% 5%	1/4W 1/4W	
C714 C715	1-102-976-00 1-102-976-00	CERAMIC	180PF 180PF	5% 5%	50V 50V	R708 R709	1-249-431-11		15K	5%	1/4W	
C716	1-102-976-00		180PF	5%	50V	R710	1-249-431-11 1-215-391-00	METAL	15K 56	5% 1%	1/4W 1/4W	
C717 C718	1-107-372-11 1-107-372-11		0.22MF 0.22MF	10%	200V	R711 R712	1-215-394-00 1-215-392-00		75 62	1% 1%	1/4W 1/4W	
C720 C734	1-106-383-00 1-102-973-00	MYLAR	0.047MF	10% 10%	200V 200V	R715	1-202-818-00		1K	20%	1/2W	
C735	1-102-816-00		100PF 120PF	5% 5%	50V 50V	R716 R717	1-202-818-00	METAL OXIDE SOLID	1K	5% 20%	3W 1/2W	F
C736 C740	1-102-816-00 1-162-114-00		120PF	5%	50V	R718 R719	1-216-486-00 1-202-818-00	METAL OXIDE SOLID	8.2K 1K	5% 20%	3W 1/2W	F
C/40	1-102-114-00	CERAMIC	0.0047MF	(1	2KV 14M4U/E/A)	R720		METAL OXIDE		5%	3W	F
		<connector:< td=""><td></td><td></td><td></td><td>R722 R722</td><td>1-202-838-00</td><td></td><td>100K</td><td></td><td>1/2W 4M4U/E</td><td>E/A)</td></connector:<>				R722 R722	1-202-838-00		100K		1/2W 4M4U/E	E/A)
CN701	* 1-564-511-11	PLUG. CONNEC	CTOR 8P			R723	1-202-883-11 1-202-838-00		680K 100K		1/2W 4M2U/E	E/A)
CN702 CN703	* 1-573-964-11	PIN, CONNECT TAB (CONTACT	OR (PC BOA	ARD) 6	P	R724	1-202-842-11		220K	20% 20%	1/2W 1/2W	
CN704		TAB (CONTACT		E/A)		R725	1-202-719-00	SOLID	1 <b>M</b>	20%	1/2W 4M2U/E	;/ <b>Δ</b> \
		<diode></diode>			į	R725	1-202-883-11	SOLID	680K	20%	1/2W 4M4U/E	
D701		DIODE 1SS119-				R731 R732	1-247-815-91 1-247-815-91		220 220	5% `¯ 5%	1/4W 1/4W	,
D702 D703	8-719-911-19	DIODE 188119-2	25			R733	1-247-815-91	CARBON	220	5%	1/4W	
D704 D705		DIODE 188119-2 DIODE 188119-2				R734 R735	1-249-409-11 1-249-409-11	CARBON CARBON	220 220	5% 5%	1/4W 1/4W	
D706		DIODE 1SS119-2	25			R736 R737	1-249-409-11 1-247-807-31	CARBON	220 100	5% 5%	1/4W 1/4W	
D707 D708	8-719-901-83	DIODE 1SS83 DIODE 1SS83				R738	1-247-807-31		100	5%	1/4W	
D709 D713		DIODE 1SS83 DIODE 1SS83				R739 R740	1-247-807-31 1-249-429-11	CARBON	100 10K	5% 5%	1/4W 1/4W	F
D715		DIODE 1SS83				R741 R742	1-249-429-11 1-249-429-11		10K 10K	5% 5%	1/4W 1/4W	F
D716 D717		DIODE 1SS83 DIODE 1SS83				R744	1-249-429-11		10K	5%	1/4W	•
						R745 R746	1-249-429-11 1-215-879-11	CARBON METAL OXIDE	10K 47K	5% 5%	1/4W 1W	F
1701	1 001 114 11	<jack></jack>				R747 R748	1-247-725-11 1-249-923-11	CARBON	10K 1K	5% 5%	1/4W 1/4W	F F
J701 J701	1-251-116-11	SOCKET, PICTU SOCKET, PICTU	IRE TUBE ( IRE TUBE (	14M4U 14M2U	I/E/A) I/E/A)	R749		METAL OXIDE	47K	5%	2W	F
		<coil></coil>				R750 R751	1-249-400-11 1-247-887-00	CARBON	39 220K	5% 5%	1/4W 1/4W	F
L701	1-410-667-31	INDUCTOR 22U	н			R752 R753	1-247-887-00 1-247-887-00	CARBON CARBON	220K 220K	5% 5%	1/4W 1/4W	
L705 L705	1-412-532-11	INDUCTOR 39U INDUCTOR 56U	H (14M2U/E	E/A)				-WADIADI E DE	OIOTAN.			
. ==			(	-1 6 b j		RV707	1-230-641-11	<variable p="" re<=""> RES, ADJ, META</variable>		2.214		
		<transistor></transistor>	•		į	RV708				(14	4M2U/E	/ <b>A</b> )
Q701	8-729-119-78	TRANSISTOR 2	SC2785-HFE	3	į		- 250 015-11	RES, ADJ, METAL GLAZE 110M (14M2U/E/A)				/ <b>A</b> )

The componants identified by shading and mark ∆ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite Ne les remplacer que par une piece portant le numero specifie



REF. NO.	PART NO.	DESCRIPTION		F	REMARK	REF. NO.	PART NO.	DESCRIPTION		RE	MARK
RV708 RV709	1-241-714-11 1-230-641-11	RES, ADJ, META RES, ADJ, META <spark gap=""></spark>	AL FILM 1 AL GLAZE	10M (14N 2.2M	M4U/E/A)	\$2102 \$2103 \$2104 \$2105	1-570-101-41 1-570-101-41	SWITCH, KEY I SWITCH, KEY I SWITCH, KEY I SWITCH, KEY I	BOARD BOARD		
SG701 SG702 SG703 SG704	1-519-422-11 1-519-422-11	GAP, SPARK (14 GAP, SPARK (14 GAP, SPARK (14 GAP, SPARK (14	4M4U/E/A) 4M4U/E/A)			\$2106 \$2107 \$2108 \$2109 \$2110	1-570-969-11 1-570-101-41 1-570-101-41	SWITCH, KEY I SWITCH, KEY I SWITCH, KEY I SWITCH, KEY I SWITCH, KEY I	BOARD BOARD BOARD		
**************************************							1-570-101-41 1-570-969-11	SWITCH, KEY H SWITCH, KEY H SWITCH, KEY H SWITCH, KEY H	BOARD BOARD		
*	4-348-208-00	HOLDER, LED				******	*****	******	******	*****	*****
		<connector></connector>					* A-1388-193-A	J BOARD, CO!	MPLETE		
		PLUG, CONNEC						<connector></connector>	•		
		<diode></diode>				CN608	* 1-695-561-11	PIN, CONNECT	OR (PC BOAR	(D) 7P	
D2102 D2103	8-719-812-32	DIODE SLP281C DIODE TLY123						<switch></switch>			
D2104	8-719-991-33	DIODE 1SS133T	-77			S601 .	∆ 1-692-921-11	SWITCH, PUSH	(A.C. POWE	U)	
		<resistor></resistor>				******	******	******	******	*****	*****
R2101 R2107 R2136 R2137 R2138	1-249-419-11 1-249-430-11 1-249-414-11 1-249-414-11 1-249-414-11	CARBON CARBON CARBON	1.5K 12K 560 560 560	5% 5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W		* A-1390-704-A	X BOARD, CO	MPLETE *******		
R2139 R2140 R2141 R2142 R2143	1-249-414-11 1-249-414-11 1-249-414-11 1-249-414-11 1-249-414-11	CARBON CARBON CARBON	560 560 560 560 560	5% 5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W	CN108	* 1-564-518-11	<connectors <="" connectors="" p="" plug,=""></connectors>			
R2144 R2145 R2147 R2148 R2149	1-249-414-11 1-249-414-11 1-215-427-00 1-215-419-00 1-215-414-00	CARBON CARBON METAL METAL	560 560 1.8K 820 510	5% 5% 1% 1%	1/4W 1/4W 1/4W 1/4W 1/4W	D001 D002 D003 D004	8-719-023-78 8-719-023-78	DIODE SEL3810 DIODE SEL3810 DIODE SEL3810 DIODE SEL3810	DLC05 DLC05		
R2150 R2151 R2152 R2153	1-215-409-00 1-215-407-00 1-215-404-00 1-215-401-11	METAL METAL METAL	330 270 200 150	1% 1% 1% 1%	1/4W 1/4W 1/4W 1/4W			**************************************	MPLETE	k alk alk alk alk alk alk	*****
R2154 R2155 R2156 R2157 R2158	1-215-399-00 1-215-397-00 1-215-421-00 1-215-416-00 1-215-410-00	METAL METAL METAL	120 100 1K 620 360	1% 1% 1% 1%	1/4W 1/4W 1/4W 1/4W	C805	1-102-978-00	<capacitor></capacitor>	(PVM		/14M4U)
R2159 R2160	1-215-405-00 1-215-421-00	METAL	220 1K	1% 1%	1/4W 1/4W	C806 C807 C810	1-136-165-00 1-130-477-00 1-136-165-00	FILM MYLAR FILM	220PF 59 0.1MF 59 0.0033MF 59 0.1MF 59	% 5 % 5	0V 0V 0V
RV2101 RV2103 RV2105	1-225-385-11	<variable car="" car<="" re="" res,="" td="" var,=""><td>BON 20K BON 20K</td><td></td><td></td><td>C811 C812 C813 C818</td><td>1-136-165-00 1-136-495-11 1-124-261-00 1-136-165-00</td><td>FILM ELECT</td><td>0.1MF 59 0.068MF 59 10MF 20 0.1MF 59</td><td>% 5 0% 5</td><td>0V 0V 0V 0V</td></variable>	BON 20K BON 20K			C811 C812 C813 C818	1-136-165-00 1-136-495-11 1-124-261-00 1-136-165-00	FILM ELECT	0.1MF 59 0.068MF 59 10MF 20 0.1MF 59	% 5 0% 5	0V 0V 0V 0V
RV2109 RV2113	1-225-385-11	RES, VAR, CAR RES, VAR, CAR	BON 20K					<connector></connector>	•		
RV2117	1-241-238-21	RES, VAR, CAR	BON 20K			CN801	*1-573-896-11	SOCKET, CONN	ECTOR 12P		
		<switch></switch>						<coil></coil>			
S2101	1-570-101-41	SWITCH, KEY E	BOARD			L801	1-410-470-11	INDUCTOR 10U	Н		



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REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
		<resistor></resistor>				C2447	1-124-234-00	ELECT	22MF	20%	16V
D000	1 240 425	CARRON	0075	F.01	1 14500	C2448	1-124-234-00	ELECT	22MF	20%	16V
R802 R803	1-249-435-11 1-247-863-91		33K 22K	5% 5%	1/4W 1/4W	C2449	1-124-234-00	ELECT	22MF	20%	16V
R804	1-215-454-00		24K	1%	1/4W	C2450	1-124-234-00	ELECT	22MF	20%	16V
R805	1-215-461-00		47K	1%	1/4W	C2451	1-124-589-11		47MF	20%	16 <b>V</b>
R808	1-249-417-11	CARBON	1K	5%	1/4W	C2452 C2454	1-124-589-11 1-126-163-11		47MF 4,7MF	20% 20%	16V 25V
R812	1-249-417-11		1 <b>K</b>	5%	1/4W	C2461		CERAMIC CHIP		20 /	50V
R813 R815	1-249-417-11 1-247-843-11		1K 3.3K	5% 5%	1/4W 1/4W	COACO	1 145 210 11	GED ALVO GUID	0.13.00		#0**
R816	1-249-418-11		1.2K	5%	1/4W 1/4W	C2462 C2463		CERAMIC CHIP CERAMIC CHIP			50V 50V
R817	1-249-418-11	CARBON	1.2K	5%	1/4W	C2464	1-165-319-11	CERAMIC CHIP	0.1MF		50V
R818	1-249-418-11	CARBON	1.2K	5%	1/4W	C2465 C2466	1-165-319-11	CERAMIC CHIP	0.1MF		50V 50V
R819	1-249-418-11	CARBON	1.2K	5%	1/4W		1-105-519-11	CERAMIC CHIP	U.IMIF		30 <b>V</b>
R820	1-249-422-11	CARBON	2.7K	5%	1/4W	C2467		CERAMIC CHIP			50V
						C2468 C2469		CERAMIC CHIP CERAMIC CHIP			50V 50V
		*****				C2470		CERAMIC CHIP			50V
******	********	*****	*****	*****	*****						
	1-537-735-14	TERMINAL BO	ARD ASSY	, I/O(A)				<connector></connector>	•		
		*****	****								
				(	(Q BOARD)	CN306 CN307		PLUG, CONNEC PLUG, CONNEC			
	2-990-241-02	HOLDER (A), I	PLUG			CN308	1-564-519-11	PLUG, CONNEC	TOR 4P		
	3-178-213-21					CN2401 /	1-251-263-11	INLET, AC			
	7-685-135-19	SCREW +P 2.6	X10 TYPE	2 SLIT		CN2402	1-565-167-12	TERMINAL, (S)	(WITH SW	') 4P	
						CN2403	1-569-578-11	TERMINAL, S (V	VITH SW)		
		<capacitor></capacitor>				CN2404	1-764-872-11	CONNECTOR, M	IULTI 20P		
C2401	1-163-111-00	CERAMIC CHIP	56PF	5%	50V						
C2402	1-104-396-11		10MF	20%	16V			<diode></diode>			
C2403 C2404	1-104-396-11 1-104-396-11		10MF 10MF	20% 20%	16V 16V	D2402	8-710-016 74	DIODE 1SS352			
C2405	1-124-589-11		47MF	20%	16V	D2404		DIODE 1SS332 DIODE 1SS226			
C2406	1 104 206 11	ELECT	10) 65	200	1.01	D2405	8-719-800-76	DIODE 1SS226			
C2406 C2407	1-104-396-11 1-104-396-11		10MF 10MF	20% 20%	16V 16V	D2406 D2407		DIODE 1SS226 DIODE 1SS226			
C2408	1-104-396-11	ELECT	10MF	20%	16 <b>V</b>	22-101	0 713-000-70	DIODE 133220			
C2409 C2410	1-124-234-00	ELECT CERAMIC CHIP	22MF	20%	16V 50V	D2408 D2409		DIODE 188226			
C2410	1-103-033-91	CERAMIC CHIP	U.UZZIVIF		201	D2409 D2410		DIODE 1SS226 DIODE 1SS226			
C2411	1-104-396-11		10MF	20%	16V	D2411	8-719-800-76	DIODE 1SS226			
C2412 C2413	1-104-396-11	CERAMIC CHIP	10MF	20% 5%	16V 50V	D2415	8-719-800-76	DIODE 1SS226			
C2414	1-126-301-11	ELECT	1MF	20%	50V	D2416	8-719-800-76	DIODE 1SS226			
C2415	1-165-319-11	CERAMIC CHIP	0.1MF		50V	D2417 D2418		DIODE 188226			
C2416	1-124-589-11	ELECT	47MF	20%	16V	D2410 D2420		DIODE 1SS226 DIODE RD27SB-	·T1		
C2418		CERAMIC CHIP		200	50V	D2421		DIODE RD27SB-			
C2422 C2423	1-124-234-00 1-124-234-00		22MF 22MF	20% 20%	16V 16V	D2422	8-719-037-53	DIODE RD27SB-	т1		
C2424		CERAMIC CHIP		2070	50V	D2423		DIODE RD27SB-			
C2425	1-124-589-11	FLECT	47MF	20%	16V						
C2426	1-124-589-11	ELECT	47MF	20%	16V			<ic></ic>			
C2427 C2428	1-124-234-00		22MF	20%	16V	100401	0.750.700.51		70		
C2428 C2429	1-103-033-91	CERAMIC CHIP ELECT	0.022MF 22MF	20%	50V 16V	IC2401 IC2402		IC XRU4021BF-I IC XRU4021BF-I			
				_ 5 , 5		IC2403	8-759-287-89	IC MM1113XFF	- <del>-</del>		
C2430 C2431	1-163-033-91 1-124-234-00	CERAMIC CHIP	0.022MF 22MF	20%	50V 16V	IC2404 IC2405		IC MM1111XF			
C2432	1-124-234-00		22MF	20%	16V 16V	102403	0-137-281-89	IC MM1113XFF			
C2433	1-163-033-91	CERAMIC CHIP	0.022MF		50V						
C2434	1-124-463-00	ELECT	0.1MF	20%	50V			<jack></jack>			
C2435		CERAMIC CHIP	0.022MF		50V	J2401	1-562-261-71	CONNECTOR, C	OAXIAL	BNC)	
C2436	1-124-234-00	ELECT	22MF	20%	16V	J2402	1-766-738-11	BNC (WITH SW)	,	,	
C2437 C2438	1-163-033-91	CERAMIC CHIP ELECT	0.022MF 22MF	20%	50V 16V	J2403 J2404		CONNECTOR, C BNC (WITH SW)		BNC)	
C2439	1-124-234-00		22MF	20%	16V	J2405		CONNECTOR, C		BNC)	
C2440	1_163_033_01	CERAMIC CHIP	0.022ME		50V	12404				,	
C2441	1-124-234-00		0.022MF 22MF	20%	16V	J2406 J2407		BNC (WITH SW) CONNECTOR, C		BNC	
C2442	1-124-234-00	ELECT	22MF	20%	16V	J2408	1-766-738-11	BNC (WITH SW)	· `	-,	
C2443 C2444	1-124-234-00 1-124-234-00		22MF 22MF	20% 20%	16V 16V	J2409 J2410		CONNECTOR, C BNC (WITH SW)		BNC)	
				2370	İ			,			
C2445 C2446		CERAMIC CHIP			50V	J2411	1-562-261-71	CONNECTOR, C	OAXIAL (	BNC)	
C2740	1-102-022-91	CERAMIC CHIP	U.UZZMIT		50V 1	J2412	1-/00-/38-11	BNC (WITH SW)	•		



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK
J2413	1-507-802-41	JACK, PIN (MOUNT TYPE)		R2417	1-216-073-00	METAL GLAZE 10K	5%	1/10W
J2414 J2415		JACK, PIN (MOUNT TYPE)		R2418	1-216-089-91	METAL GLAZE 47K	5%	1/10W
J2413	1-307-802-41	JACK, PIN (MOUNT TYPE)		R2419 R2420		METAL GLAZE 10K METAL GLAZE 47K	5% 5%	1/10W 1/10W
J2416		JACK, PIN (MOUNT TYPE)		R2421		METAL GLAZE 10K	5%	1/10W
J2417 J2418		JACK, PIN (MOUNT TYPE) JACK, PIN (MOUNT TYPE)		R2422	1-216-089-01	METAL GLAZE 47K	5%	1/10W
J2419	1-507-802-41	JACK, PIN (MOUNT TYPE)		R2423	1-216-073-00	METAL GLAZE 10K	5%	1/10W
J2420	1-507-802-41	JACK, PIN (MOUNT TYPE)		R2424 R2425		METAL GLAZE 47K	5%	1/10W
				R2426	1-214-775-00	METAL GLAZE 10K METAL 82K	5% 1%	1/10W 1/4W
		<chip conductor=""></chip>		R2427	1 216 007 01	METAL CLAZE 100V	E 01	1/1037/
JR1		CONDUCTOR, CHIP		R2428		METAL GLAZE 100K METAL GLAZE 220K	5% 5%	1/10W 1/10W
JR4 JR5		CONDUCTOR, CHIP		R2429	1-216-025-91	METAL GLAZE 100	5%	1/10W
JR7		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2430 R2431		METAL GLAZE 560K METAL GLAZE 15K	5% 5%	1/10W 1/10W
JR12		CONDUCTOR, CHIP				_		
JR13	1-216-295-91	CONDUCTOR, CHIP		R2432 R2433	1-214-775-00 1-216-097-91	METAL 82K METAL GLAZE 100K	1% 5%	1/4W 1/10W
JR14		CONDUCTOR, CHIP		R2434	1-216-105-91	METAL GLAZE 220K	5%	1/10W
JR15 JR16		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2435 R2436		METAL GLAZE 100 METAL GLAZE 560K	5% 5%	1/10W 1/10W
JR17		CONDUCTOR, CHIP					370	1/10 W
JR19	1-216-295-91	CONDUCTOR, CHIP		R2437 R2438		CONDUCTOR, CHIP METAL GLAZE 15K	5%	1/10W
JR20	1-216-295-91	CONDUCTOR, CHIP		R2439	1-214-775-00	METAL 82K	1%	1/10W 1/4W
JR21 JR23		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2440 R2441		METAL GLAZE 220K	5%	1/10W
JR30		CONDUCTOR, CHIP		R2441	1-210-097-91	METAL GLAZE 100K	5%	1/10W
JR34				R2442		METAL GLAZE 100	5%	1/10W
JR35		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2443 R2444		METAL GLAZE 560K METAL GLAZE 15K	5% 5%	1/10W 1/10W
JR40		CONDUCTOR, CHIP		R2446	1-214-775-00	METAL 82K	1%	1/4W
JR41 JR43		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2447	1-216-105-91	METAL GLAZE 220K	5%	1/10W
TD 44				R2448		METAL GLAZE 100K	5%	1/10W
JR46 JR47		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2449 R2450		METAL GLAZE 100 METAL GLAZE 560K	5% 5%	1/10W 1/10W
JR48	1-216-295-91	CONDUCTOR, CHIP		R2451	1-216-077-00	METAL GLAZE 15K	5%	1/10W
JR52 JR60		CONDUCTOR, CHIP CONDUCTOR, CHIP		R2452	1-216-089-91	METAL GLAZE 47K	5%	1/10W
******	- 200 200 01	oon booton, orm		R2453		METAL GLAZE 10K	5%	1/10W
		<transistor></transistor>		R2455 R2458		METAL GLAZE 470K CONDUCTOR, CHIP	5%	1/10W
				R2463	1-216-085-00	METAL GLAZE 33K	5%	1/10W
Q2401 Q2402		TRANSISTOR 2SC1623-L5L6 TRANSISTOR 2SA1162-G		R2465	1-216-073-00	METAL GLAZE 10K	5%	1/10W
<b>Q24</b> 03	8-729-216-22	TRANSISTOR 2SA1162-G		R2466	1-216-073-00	METAL GLAZE 10K	5%	1/10W
Q2404 Q2405	8-729-216-22 8-729-216-22	TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G		R2467 R2470		METAL GLAZE 10K	5%	1/10W
-	0-729-210-22	1KANSISTOR 2SATTU2-0		R2471	1-214-702-00 1-216-093-00	METAL 75 METAL GLAZE 68K	1% 5%	1/4W 1/10W
Q2408 Q2409		TRANSISTOR 2SC1623-L5L6 TRANSISTOR 2SC1623-L5L6		R2472		METAL GLAZE 3.9K	5%	1/10W
<b>Q24</b> 10	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R2473	1-216-037-00	METAL GLAZE 330	5%	1/10W
Q2411		TRANSISTOR 2SC1623-L5L6		R2474	1-216-049-91	METAL GLAZE 1K	5%	1/10W
Q2412	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R2475 R2476	1-216-091-00	METAL GLAZE 56K METAL 75	5% 10%	1/10W 1/4W
Q2414 Q2415		TRANSISTOR 2SC1623-L5L6		R2477		METAL GLAZE 56K	5%	1/10W
Q2415 Q2416		TRANSISTOR 2SC1623-L5L6 TRANSISTOR 2SA1162-G		R2478	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
Q2417	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R2479	1-216-027-00	METAL GLAZE 120	5%	1/10W
				R2480 R2481		METAL GLAZE 1K METAL GLAZE 68K	5% 5%	1/10W 1/10W
		<resistor></resistor>		R2482	1-214-702-00		1%	1/4W
R2401	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2483	1-216-091-00	METAL GLAZE 56K	5%	1/10W
R2402 R2404		METAL GLAZE 560 5%	1/10W	R2484	1-216-027-00	METAL GLAZE 120	5%	1/10W
R2405		METAL GLAZE 47K 5% METAL GLAZE 10K 5%	1/10W 1/10W	R2485 R2486		METAL GLAZE 3.9K METAL GLAZE 1K	5% 5%	1/10W 1/10W
R2406		METAL GLAZE 47K 5%	1/10W	R2487		METAL GLAZE 68K	5%	1/10W
R2407		METAL GLAZE 10K 5%	1/10W	R2488	1-214-702-00		1%	1/4W
R2408 R2409		METAL GLAZE 47K 5%	1/10W	R2489	1-216-091-00	METAL GLAZE 56K	5%	1/10W
R2410		METAL GLAZE 10K 5% METAL GLAZE 47K 5%	1/10W 1/10W	R2490 R2491		METAL GLAZE 3.9K METAL GLAZE 120	5% 5%	1/10W 1/10W
R2411		METAL GLAZE 10K 5%	1/10W	R2492		METAL GLAZE 1K	5%	1/10W
R2412		METAL GLAZE 47K 5%	1/10W	R2493	1-216-093-00	METAL GLAZE 68K	5%	1/10W
R2413 R2414		METAL GLAZE 10K 5%	1/10W	R2494	1-214-702-00	METAL 75	1%	1/4W
R2415		METAL GLAZE 47K 5% METAL GLAZE 10K 5%	1/10W 1/10W	R2495 R2496	1-214-702-00 1-216-091-00	METAL 75 METAL GLAZE 56K	1% 5%	1/4W 1/10W
R2416	1-216-089-91	METAL GLAZE 47K 5%	1/10W	R2497		METAL GLAZE 3.9K	5%	1/10W

## PVM-14M2U/14M4U/14M2E PVM-14M4E/14M2A/14M4A



REF. NO. PART NO. DESCRIPTION REMARK R2498 1-216-037-00 METAL GLAZE 330 5% 1/10W 1-216-049-91 METAL GLAZE 1K 5% R2499 1/10W R3400 1-216-093-00 METAL GLAZE 68K 5% 1/10W R3402 1-216-091-00 METAL GLAZE 56K 5% 1/10W R3404 1-216-063-91 METAL GLAZE 3.9K 5% 1/10W 1/10W R3405 1-216-037-00 METAL GLAZE 330 R3406 1-216-049-91 METAL GLAZE 1K 1/10W R3408 1-216-093-00 METAL GLAZE 68K 5% 1/10W R3409 1-214-702-00 METAL 75 1% 1/4W 1-216-091-00 METAL GLAZE 56K 1/10W 5% R3410 5% 1/10W R3411 1-216-063-91 METAL GLAZE 3.9K 1-216-037-00 METAL GLAZE 330 5% 1/10W R3412 1-216-073-00 METAL GLAZE 10K R3413 5% 1/10W R3414 1-216-073-00 METAL GLAZE 10K 5% 1/10W 5% 1/10W R3416 1-216-049-91 METAL GLAZE 1K 1/10W R3417 1-216-093-00 METAL GLAZE 68K 1-214-702-00 METAL 75 1-216-037-00 METAL GLAZE 330 1-216-023-00 METAL GLAZE 82 R3418 1% 1/4W 1/10W R3419 R3420 5% 5% 1/10W R3421 1-216-689-11 METAL GLAZE 39K 1/10W R3422 1-216-049-91 METAL GLAZE 1K 5% 1/10W 1-216-083-00 METAL GLAZE 27K 1-216-049-91 METAL GLAZE 1K 5% 5% R3423 1/10W R3424 1/10W R3425 1-216-061-00 METAL GLAZE 3.3K 5% 1/10W R3426 1-216-099-00 METAL GLAZE 120 1/10W 5% 5% 5% 1-216-089-91 METAL GLAZE 47K 1-216-073-00 METAL GLAZE 10K 1/10W R3427 1/10W R3428 1-216-089-91 METAL GLAZE 47K 1-216-073-00 METAL GLAZE 10K R3429 1/10W R3430 1/10W R3431 1-216-089-91 METAL GLAZE 47K 5% 1/10W R3432 1-216-073-00 METAL GLAZE 10K 1-216-045-91 METAL GLAZE 680 1-216-045-91 METAL GLAZE 680 5% 1/10W R3435 5% 1/10W R3436 5% 1/10W R3437 1-216-045-91 METAL GLAZE 680 5% 1/10W R3438 1-216-045-91 METAL GLAZE 680 5% 1/10W 1/10W R3439 1-216-045-91 METAL GLAZE 680 <SWITCH> S2401 1-570-598-11 SWITCH, DIP

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Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie

The components identified by shading and mark  $\triangle$  are critical for safety.

Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOU	
	∆1-223-417-11	RESISTOR ASSY	(HIGH-VOLTAGE) (14M4U/E/A)
	<b>д 1-426-442-21</b>	COIL, DEMAGN	
	Ā1-451-457-ĪĪ	<b>DEFLECTION Y</b>	OKE (14M4U/E/A)
		MAGNET, DISK	
	1-452-094-00	MAGNET,ROTA	TABLE DISK; 15mmø
	1-544-063-12		
	△1-576-231-11	FUSE (H.B.C.) 47	V250V
	Δ1-590-910-11	CORD SET, POW	/ER (14M2E/A, 14M4E/A)
	1-765-268-11	CORD, CONNEC	TION /ER (14M2U/14M4U)
	W 1-103-119-11	CUKD SEI, FUW	(ER (14M2U/14M4U)
			OKE (14M2U/E/A)
	▲8-738-333-05	PICTURE TUBE	14MT1 (L-BVM, PVM) (14M4E/A)
	∆ 8-738-335-05	PICTURE TUBE	14MT3(L-BVM, PVM)
	∆ 8-738-342-05	PICTURE TUBE	(14M4U) 14MG(DARK) (14M2U/E/A)
******	******	*******	********
		ES AND PACKING	
Ì	3-170-078-01	HOLDER (B), PL	UG
	3-859-663-12	MANUAL, INST	
	3-859-663-22	MANUAL, INST	(14M2E/14M4E only) RUCTION
		LABEL, TALLY	
	* 4-058-820-01	INDIVIDUAL CA	ARTON
	* 4-381-155-01	BAG, PROTECT	ION
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